Aalto University
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Value Creation in Residential Development – Applying the Ecosystem Concept

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Abstract of master's thesis

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Abstract

As urbanization remains a steady trend, residential development is necessary for answering the ever-increasing demand for housing in the Finnish residential market. A possible solution is presented by redevelopment and infill projects, that enable new residential construction in urban areas. The aim of this master's thesis is to increase knowledge on value creation in residential development, and to further study the applicability of the ecosystem concept, as well as recognize main elements of value in residential development. The key focus is studying whether a residential development site could function as a platform for an ecosystem.

In the thesis, the concept of ecosystem is applied. The core of the concept is the idea of different actors participating in a highly interdependent network and collaborating and working towards a shared goal. Through this greater value can be created, mostly through savings in time and resource inputs as well as through better quality in the product and end-result. The empirical section of the thesis is focused on the residential development of Kruunuvuorenranta, where former oil harbour premises are transformed into a residential area for a population of over 12,000 inhabitants. The development project has also faced criticism in the public eye, mostly because of the related Crowne Bridges project, that connects the area to the public and pedestrian transport networks of downtown, but also requires heavy investments.

The research problem was approached through a semi-structured interview study. As participants for the interview study, nine representatives from different network organizations were chosen. The interviews were carried out in May-June 2017.

The research is assessed to be too limited to give a definitive answer to whether ecosystem concept can be applied in residential development. However, the interviewees did all have a positive outlook on the increased collaboration in residential development. As possible benefits of operating according to the ecosystem concept, increased sharing of information, better quality of residential environment and more efficient scheduling of the projects were discovered. Based on the findings, ecosystem could be suitable for residential development. As for the elements of value in Kruunuvuorenranta, the Crowne Bridges proved to be the most notable element and was regarded as having the most effect on the whole area's development and character, also affecting heavily the value creation in the area. As other important value creating factors in the area the nautical atmosphere, proximity to nature, quality of building and the area's history were recognized. Based on this, it is suggested that Kruunuvuorenranta indeed has its own identity and values, making it a possible platform for an ecosystem to form around.

Keywords ecosystem, platform, network, value creation, residential development

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Tiivistelmä

Kaupungistuminen on jatkuva trendi suomalaisessa asuntomarkkinassa. Asuntokehitys pyrkii vastaamaan kasvavaan kysyntään kaupunkialueilla ja yhtenä keinona on vanhojen asuinalueiden täydennysrakentaminen sekä uudelleenkehittämishankkeet. Tässä diplomityössä paneudutaan asuntokehityshankkeiden arvonmuodostukseen ja erityisesti tutkitaan voisiko asuntokehitysalue toimia alustana arvonmuodostukselle ekosysteemi-periaatteen mukaisesti.

Diplomityössä sovelletaan ekosysteemikonseptia, jonka perusajatuksena on vahvasti keskenään riippuvaisten arvoa luovien verkostojen yhteistyö ja ponnistelu yhteistä tavoitetta kohti. Näin synnytetään myös suurempaa arvoa, johtuen muun muassa aiheutuvista kustannussäästöistä. Tutkimuksen empiirinen osuus käsittelee Kruunuvuorenrannan aluerakentamishanketta, jossa aiemmin öljysatamakäytössä ollut alue muutetaan reilun 12 000 asukkaan asuinalueeksi. Kehityshanke on julkisessa keskustelussa ollut myös vastatuulessa, johtuen mittavasta siltainvestoinnista, joka mahdollistaa alueen yhdistämisen kantakaupungin julkisen ja kevyen liikenteen verkostoihin.

Tutkimus toteutettiin puoliavoimena haastattelututkimuksena, jonka osallistujiksi valittiin yhdeksän henkilöä kehityshankkeen keskeisistä organisaatioista. Haastattelut toteutettiin touko-kesäkuussa 2017.

Tutkimus oli varsin suppea, eikä lopullista vastausta voida antaa kysymykseen, voidaanko ekosysteemi-konseptin soveltaa asuntokehitykseen. Kuitenkaan tutkimuksessa ei käynyt ilmi tekijöitä, joiden pohjalta voitaisiin sanoa, että konsepti ehdottomasti ei sovellu käytettäviksi. Lisääntyvään yhteistyöhön suhtauduttiin haastattelututkimuksessa positiivisesti ja sen arvovaikutukset todettiin todellisiksi. Tämän perusteella voidaan sanoa, että tulokset ovat rohkaisevia ja ekosysteemin käyttö saattaa soveltua asuntokehitykseen. Lisäksi arvonmuodostuksesta Kruunuvuorenrannan alueella voidaan todeta, että Kruunusiltojen vaikutus koko alueen kehitykselle ja muodostumiselle on elintärkeä. Täten se vaikuttaa myös alueen arvonmuodostukseen. Muita tärkeitä arvotekijöitä Kruunuvuoressa tunnistettiin olevan merellisyys, luonnon läheisyys, laadukas rakentaminen sekä alueen historia. Tämän perusteella voidaan ehdottaa, että Kruunuvuorenrannalla on selkeä identiteetti ja omat arvot, joten on mahdollista, että Kruunuvuorenranta voisi toimia alustana ekosysteemin kehittymiselle.

Avainsanat ekosysteemi, alusta, arvonmuodostus, verkosto, asuntokehitys, kiinteistökehitys

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Finally, my deepest gratitude belongs with my family and friends, for their continued support and encouragement. Juuso, thank you for always believing in me and helping me achieve anything I set my mind on. My younger siblings, Emppu and Kia, striving to set a good example for you two has made me a better person. And most importantly, mom, thank you for everything.

Jonna Haavisto

Table of Contents

1 Introduction

1.1 Background

"Companies that solely focus on competition will ultimately die. Those that focus on value creation will thrive."

Edward de Bono

Residential development is real estate development or property development for residential use. Real estate development is a large industry with a major effect on the structure of cities and built environment overall. The structure of the industry has been of little interest in scientific research. (Coiacetto 2009, p. 117.) Nor has the value creation in real estate development been extensively studied, even though it is widely agreed upon that the goal of real estate development is in fact value creation. Specifically, the effects of strategy and managerial tasks on value creation have been disregarded in the literature. (Roulac et al. 2006, p. 474.)

Residential development plays a crucial role in the economy and has been shown to have a significant effect on a nation's gross domestic product. (Mayer and Somerville 2000, p. 85; Green 1997, p. 266). In addition to direct implications, residential development along with construction causes indirect economic growth through multiplier effects as new home-owners tend to purchase other consumer durables as well (Mayer and Somerville 2000, p. 85). An industry of this magnitude is surely worth more examining.

From a purely economic perspective, value is defined as the price that will be paid for the highest and best use of real estate and is determined therefore by supply and demand. In reality the price is affected by planning policy, which regulates the use of the property. (Roulac et al. 2006, p. 475-476.) Seeing as urbanization is a continuing trend in the Finnish housing market (Pellervon taloustutkimus, 13 January 2017), it is only logical that demand for housing in urban areas is constantly increasing and along it also the prices. To meet the growing demand for urban housing, infill sites and redevelopment projects are developed. Allotting brownfield areas into redevelopment for residential use was a trend in the previous masterplan (see Helsinki City Planning Department 2003), of which Kruunuvuorenranta is a prime example.

The area was allocated for housing already in the previous master plan of year 2002 alongside other former harbor areas of Jätkäsaari and Kalasatama (Helsinki City Planning Department 2003). Since then, the development of the area has been delayed mostly by contaminated soils and the uncertainty related to the transportation mode joining the area to the mainland. Solving the transportation has been one of the most important problems in the case of Kruunuvuorenranta. The area is quite secluded, as it is located in the westernmost parts of Laajasalo. Currently Helsinki Region Transport (HSL) estimates the travel time by public transport to the city center to be some 60-80 minutes, depending on the exact location (Matka-aikakartta, HSL). Of course, it needs to be kept in mind that the public transportation in the area is completely underdeveloped and the time estimate is therefore not directly comparable with other locations in the capital region. By private car, the trip to city center will currently take about 20 min, depending on the traffic (Fonecta.fi). Clearly a faster mode

of public transportation is needed to convince people to use public transportation instead of their own cars. In order to be able to develop the area in a way that the city wishes, a more efficient solution for the transportation needed to be found (Helsinki City Planning Department 2003, p. 146). In August 2016, after countless reports on which transportation would be the most suitable one (see e.g. Laakso 2002; Jarmala et al. 2002; Bäckström and Nevala 2011; Kaupunkitutkimus TA Oy and Strafica Oy 2016), Helsinki City Council finally reached consensus and made the principle decision on the construction of three bridges to join Kruunuvuorenranta and larger Laajasalo area to down town Helsinki (Helsinki City Council's decision 31 Aug 2016).

On a different note, companies are still clinging to old ways of creating value, even though the society is quickly changing. Short-term optimizing leaves them blind to the most important customer needs. Fulfilling these would lead to longer-term success, as opposed to other previously tried solutions, such as out-sourcing. (Porter and Kramer 2011, p. 64.) Simultaneously a partial change has happened, where companies shift their focus from competing in efficiency to competing on continuous innovation. With this shift the rise of the business ecosystem has followed. (Moore 2006, p. 32-33.)

The purpose of this thesis is to bring together these two themes; to first study value creation in residential development through the ecosystem concept and to further apply what has been found, to the case of Kruunuvuorenranta. A specific point of interest is the Crown Bridges project, due to the uproar the principle decision caused in the public (see e.g. Rossi 2016; Malmberg 2016a; Malmberg 2016b). The main point of criticism in the public debate has been the hefty price tag on the planned bridge project: the current estimate runs at around 375 million euros for the whole undertaking (City of Helsinki 2016b). The bridges have been criticized for not being economically profitable. To this, the City of Helsinki has responded that the project cannot be validated on economic grounds, but that the construction of the bridges is beneficial for the urban structure and city transportation. (Helsinki City Executive Office, uuttahelsinkia.fi.)

Kruunuvuorenranta was chosen as an area to be examined in this master's thesis because of the uniqueness of the project. It is such a large-scale project in an area previously not used for housing. The location currently is not exactly accessible, travel by public transport to or from the city center takes approximately 60-80 minutes (HSL, Matka-aikakartta). This should be reduced to 15 minutes once the Crowne Bridges are finished and the two tram lines start operating from the Central Railway Station, and Kolmikulma to Yliskylä and Haakoninlahti respectively. Aside from accessibility, the area is surrounded by the Baltic Sea and the scenery is highly unique. Sea shore is highly valued in Helsinki and it is exceptional to have such a large development area on the coast.

The topic for this master's thesis came to be from the author's interest to study the effects of the Crowne Bridges project on the value of housing in Kruunuvuorenranta. Of course, many reports had been made by the City of Helsinki before the decision on constructing the bridges was made, based on price models and previous studies. According to one report, the forecasted increase in building right value brought on by the Crowne Bridges and the associated tram lines would range from 23 per cent in the immediate sphere of influence, to 4 per cent in the larger sphere of interest on city owned property in Kruunuvuorenranta (Kaupunkitutkimus TA Oy and Strafica Oy 2016, p. 42).

The ecosystem concept was chosen as a viewpoint for the thesis, because although it is widely used in high-tech industries, it has previously been applied to construction industry only limitedly (see Pulkka et al. 2016). Furthermore, the logic of value creation in an ecosystem and the benefits of operating in one to its participants are still poorly understood in the literature (see e.g. Ceccagnoli et al. 2012, p. 263, Ritala and Hurmelinna-Laukkanen 2009, p. 819-820). This thesis thrives to, for its own part, shed more light onto the value creating characteristics of the ecosystem. Value creation as such is an important subject of study for any business, seeing as efficient value creation gives a competitive edge over one's rivals (Adner and Kapoor 2010, p. 2009).

1.2 Purpose of Research and Research Questions

The aim of the thesis is to increase knowledge on value creation in residential development, and to further study the applicability of the ecosystem concept, as well as recognize main elements of value in residential development. It is further attempted to recognize those factors that are attributing to, or possibly reducing, value creation in the residential development of Kruunuvuorenranta. As a special point of interest is the role of the Crowne Bridges that have so heavily been debated in the public. The goal is to recognize not only the key factors and players contributing to the value creation in a residential development project, but also to identify their roles in the ecosystem and the connections between the factors. It is interesting to see whether some factors can be found, that are considered crucial and inalienable to Kruunuvuorenranta or to residential development on a larger scale.

The theoretical background for the thesis is the ecosystem concept, which is based on the notion of a network of participants, where interdependent actors work together towards a shared goal of maximized value creation for the whole ecosystem and the individual actors operating within it. In this master's thesis, the main focus is on recognizing possible characteristics of such an ecosystem already in place in the residential development of Kruunuvuorenranta and to further investigate the attitudes of key players in the development project towards such collaborative operations.

To fulfill the goals of the thesis, the ecosystem concept itself must first be studied thoroughly and its main characteristics and value creating mechanisms recognized. After this, it can be studied whether similarities are found in the Kruunuvuorenranta development project. After getting a clear picture of the structure and functioning of an ecosystem, it can be studied whether this would be possible to apply to Kruunuvuorenranta and if some aspects are already applied.

The thesis is also heavily focused on value creation, and for this reason the mechanisms of value creation in an ecosystem are studied. Further, to study if Kruunuvuorenranta could function as a platform for an ecosystem, its elements of value are investigated on, to see what sets the area apart from rest of the current residential development areas. Crowne Bridges project is a special point of interest in the thesis, and some light is intended to be shed on its effect in the value creation in Kruunuvuorenranta.

The research problem revolves around whether or not the ecosystem concept should be applied to residential development. Also, how is value creation shared in an ecosystem and in Kruunuvuorenranta. Lastly, an overall view of the elements of value in Kruunuvuorenranta development is attempted, with a special focus on the Crowne Bridges.

To solve the research problem, three research questions with respective sub-questions have been formed:

1) What is the ecosystem concept?
    a. How is value created in an ecosystem?
    b. Can it be applied to residential development?
2) What are the specific value creating factors in Kruunuvuorenranta residential development project and Kruunuvuorenranta as a residential area?
    a. What is the role of Crowne Bridges in the value creation?
3) Can Kruunuvuorenranta residential development be seen as an ecosystem platform?
    a. What is the value Kruunuvuorenranta provides to the participants of the ecosystem?

The thesis will attempt to answer each of these questions with a specific strategy. The first question is answered based on the literature review in chapter 3. The second research question will be answered based on the conducted interviews in the thesis' empirical section. The final research question will be attempted to answer based on the conclusions made from drawing together the findings from the literature review and the empirical section of the thesis.

1.3 Research Methodology

The aim of the thesis is to increase knowledge on value creation in residential development, and to further study the applicability of the ecosystem concept, as well as recognize main elements of value in residential development. The chosen research method for the thesis is two-fold: first a literature review is carried out to map out the previous research on the topic of the ecosystem. The focus is on value creation in an ecosystem. The goal is to form a perception of what the ecosystem concept is, how, if at all, it can be applied to residential development and to study the mechanisms behind value creation in an ecosystem. After this, research question 1 will be answered.

The second half of the research is conducted as an interview study. The goal is to recognize the different degrees of interdependence between different actors, to recognize the most central and crucial actors within the ecosystem and to clarify the attitudes towards a more collaborative way of working amongst the key actors. For the interview research, the most important things to consider are who to interview, how to structure the interviews and how and in which order to present the interview questions to receive the most reliable and valid data possible. After the interviews, the collected data is analyzed to draw conclusions on the key actors and the most important elements of value in Kruunuvuorenranta. In helping determine who to interview, the key actors in Kruunuvuorenranta were recognized. The interviewees were chosen in a way that as wide as an array of different roles within residential development as possible was present in the study.

To receive the most useful data possible from the interview survey, a semi-structured interview method is adopted. A semi-structured interview allows for variation in the order and exact phrasing of the questions, but will help to keep the discussion on topic (Saaranen-Kauppinen and Puusniekka 2006). Semi-structured interview studies have also previously

been implemented in studying ecosystems (see e.g. Adner and Kapoor 2009). The questions were formulated based on the conducted literature review on the ecosystem concept. The most relevant characteristics of ecosystems were recognized in order to utilize the interviews in discovering whether these could be found in the Finnish residential field, and more specifically in the organization of the residential development project of Kruunuvuorenranta. Through recognizing the characteristics of an ecosystem in residential development, it could be concluded if an ecosystem or some aspects of the concept were already in place. The formulation of the interview questions as well as the specific points of interest in the interviews are discussed more in depth in subchapter 4.3 Structuring the Interviews. By combining the findings in the two phases of the research, the literature review and the semi-structured interview study, it will hopefully be possible to draw conclusions on whether or not the ecosystem concept is applicable in residential development and if there is an ecosystem to be found in the residential development project in Kruunuvuorenranta. The goal is ultimately to be able to answer all the three research questions with their respective sub-questions, that are presented in subchapter 1.2 Purpose of Research and Research Questions.

1.4 Research Scope and Limitations

The aim of the thesis is to increase knowledge on value creation in residential development, and to further study the applicability of the ecosystem concept, as well as recognize main elements of value in residential development. The thesis pursuits to recognize benefits and drawbacks of applying the ecosystem concept in residential development. The empirical part of the thesis is focused on Kruunuvuorenranta residential development, which was chosen because of its unique characteristic as a sea-side development so close to downtown Helsinki as well as the extensive public debate it has been under. For the empirical part, the scope of the research is defined geographically, however the results will be attempted to be applied to the whole industry.

Residential development is an industry, where the business idea is developing previously undeveloped or underdeveloped land for value creation. The exact mechanisms of the value creation in real estate development have previously been studied only moderately (Roulac et al. 2006). Residential development for the sake of this thesis is considered to begin with starting of the detailed planning and end once all the planned buildings, infrastructure and landscaping are finished i.e. once there is no more usable building right left and the construction work has ended in the area. The focus of this thesis does not go beyond the scope of the residents having moved in.

Considering the purpose of this thesis is to study value creation, the concept of value should be determined. According to Hamilton (2002, p. 131), value has five principal types. These are 1. price value, i.e. the price put on a product or service, 2. cost value, which is the cost of performing a certain function, 3. esteem value, which describes the measure in which the product pleases one, 4. exchange value, which is focused on the amount of resources the product could be traded for, and 5. utility value, which measures how well the product performs. For the purpose of this thesis, most of these dimensions are of some interest. From the point of view of the ecosystem concept, cost savings are a notable factor in the perceived benefits of operating within the ecosystem. Therefore, cost value needs to be included in the study. Additionally, the thesis attempts to recognize the most important value creating factors, or elements of value, that are characteristic to the Kruunuvuorenranta residential

development project. These factors are noted to mostly affect the esteem value and utility value of the end-result, that is the residential area of Kruunuvuorenranta, but also have an effect on the price value as the experienced utility affects also the price one is willing to pay. Seeing as this study is focused on residential development, and the take-up phase of the finished residential area is not included in the scope of this study, the exchange value is of less interest for our purposes. However, it should be noted that while committing to purchase an apartment or other forms of housing, some residents might consider the re-sell value of the housing unit. Therefore, the perceived exchange value might have an impact on the value of the whole area, even if we are now limiting the value type out of this study.

Considering this, it is clear that the interest in this thesis is to approach value from a holistic point of view. The purpose of the thesis is not to make value assumptions or give clear estimates of actual changes in value, but to simply observe all the possible elements that could affect value creation in Kruunuvuorenranta.

Roulac et al. (2006) recognized four types of value creating forces: physical, political, economic and social. This thesis focuses more on these forces rather than the value itself. Value is also relative to those, who experiences it. For the purpose of this thesis, studying the actual value experienced by the residents of the area is not possible, even if it would be very interesting. Instead, recognizing the different elements of value in the development project is done by interviewing professionals, who are involved in the development project and the research results are based on their insight of what the future residents will value.

This thesis, as much of the previous literature on ecosystem, is focused on value creation, even though studying value appropriation may be considered equally important (Ritala and Hurmelinna-Laukkanen 2009). The definition of value creation used in this thesis is based on a definition used by Ritala and Hurmelinna-Laukkanen (2009, p. 821). By definition, value creation in this thesis is the sum of all value created by and during the course of all the individual actions that make up the process of residential development.

1.5 Research Structure

The thesis will consist of six chapters, starting with an introduction to the research topic. The introduction chapter provides an overview of the research, focusing more in depth on the motivation and background of the research. The purpose and goals of the research are presented and the research questions are defined. The second chapter will present the Kruunuvuorenranta residential development project in more detail. The aim of the chapter is to give an overall picture of the residential development in the area, of its main goals as defined in the component masterplan for the area and to introduce key actors of the residential development process. The third chapter presents the theoretical background of the thesis. Here the key concepts used in the thesis are presented along with previous research on the topic. The fourth chapter introduces the methodological background for the interview study carried out in the thesis. The practical aspects of the interview study are also included in this chapter. The fifth chapter presents the research result received from the interview study. The final sixth chapter draws together the findings made in chapters three and five, and draws conclusions of these with an ultimate goal of answering the research questions.

2 Residential Development

This chapter serves as a background for the empirical portion of the thesis. The chapter introduces the residential development project in Kruunuvuorenranta along with the area's history, motivations for the development project and its goals. Main focus is on the future housing projects and the Crowne Bridges project. Key actors in the development of the area are also identified in the subchapter 2.4 Key Actors in the Development

2.1 Key Characteristics of Residential Development as an Industry

Residential development as a business is characterized by risk, instability and uncertainty. Decisions must often be met quickly and with insufficient information. This uncertainty distinguishes real estate development from related industries, such as construction. What combines both construction and residential development, is the nature of business operations moving from project to project, with each site and project being unique. (Coiacetto 2009, p. 124.) In order for real estate development to take place, the developer must make a conscious decision to start developing a plot of land for profit as opposed to waiting for land value appreciation for capital gains. This decision is based on the characteristics of the site, which define whether or not it fits the target market. Even before the decision to start developing a plot, the decision to purchase the land is the most crucial step of the process, because that is when the developer commits to a certain location and certain site. The later decision to start developing the site is a direct consequence of the decision to purchase and carries therefore less weight. (Kaiser and Weiss 1970, p. 30.)

In real estate development, the location is generally considered the most important aspect of a development, and also the main value creating factor of the resulting building. Both present and future market value of land is highly dependent on the locational aspects of a plot. These include prestige level of the location, accessibility, zoning status and availability of public and commercial services. If these are all present, the current market value reflects the future market value well. Location consists of the relative location of the plot in relation to the other city structure surrounding it. It is therefore to be separated from topography and soil conditions of the plot, which are nontransferable characteristics of the plot. (Kaiser and Weiss 1970, p. 32-33.) In urban settings, the existing building stock in the older, more established locations of the city tend to be considered more valuable than the locations along the urban fringe (Mayer and Somerville 2000, p. 87). From this it could be concluded, that locations that are already a part of the existing urban structure, such as brownfield and infill projects, would be more desirable for development than completely new areas. On the other hand, construction costs can be significantly higher, if the existing building stock sets boundaries to the construction site.

In a few studies carried out in Aalto University (Pulkka et al. 2016, Andelin et al. 2015), it has been indicated, that creating shared value in construction is a plausible scenario, and that a goal of common value creation might have further implications on sustainability, quality and cost-effectiveness. Pulkka et al. (2016, p. 140) also pointed out that an area for development might serve as a platform for value creation, identified through the identity and values of the area. In the following the special features of Kruunuvuorenranta are discussed in order to gain a better understanding of the area and the development process there. Based

on this, it will later in this thesis be estimated whether Kruunuvuorenranta could be considered a platform.

2.2 Kruunuvuorenranta Development

The current residential development project in Kruunuvuorenranta was set into motion on 21 August 2000 when the city board stated that the former oil harbor lands were to be re-developed into residential use after the oil companies stop operations in the area in the year 2010. In the 2002 master plan of Helsinki the area was allocated into residential use. (Helsinki City Planning Department 2008, p. 6.) Originally, some 550,000 floor square meters of new residential construction was planned in the area (Helsinki City Planning Department 2003, p. 135; Laakso 2002, p. 4). After the 2002 masterplan for Helsinki became valid, a component master plan for the area of Kruunuvuorenranta was drafted. In the component master plan, the goal for the development was recognized as achieving a city district of high-quality, which would present an urban, yet a green and close-to-nature alternative for the down town development areas of Kalasatama and Jätkäsaari. As one of the most important development areas in Helsinki in the 2010's, the area was envisioned to offer high quality, versatile and comfortable housing, in a diverse range of building types, and within good accessibility from the city center. As the location is a mere 2 kilometers from Katajanokka and 3.5 kilometers from the market square by waterway, a direct connection to the down town was included in the planning of the infrastructure from the get-go. (Helsinki City Planning Department 2008, p. 7-8.)

Once the area finishes construction in the year 2030, there should be around 12,500 inhabitants living in 6,000 housing units in Kruunuvuorenranta along with some 800 workplaces. Large areas of nature and parks are meant to be saved for recreational use of the future dwellers. (Helsinki City Executive Office, uuttahelsinkia.fi.) As there is a valid component master plan in place in Kruunuvuorenranta, the new master plan for Helsinki that was passed by the City Board in October 2016, does not include Kruunuvuorenranta (Helsinki City Planning Department 2016). As for the detailed planning, six of the nine areas in Kruunuvuorenranta have a valid detailed plan. For the three remaining areas, planning process is ongoing. Construction has started in Borgströminmäki already in 2014 and the first residents were able to move in in the year 2015. The first grocery store of the whole area will be constructed in 2017 as well as a fire station. (Helsinki City Executive office, uuttahelsinkia.fi; Malmberg 2015).

The landscape of the whole nautical Helsinki, including Kruunuvuori open sea, South harbor, Market Square, Katajanokka and Suomenlinna sceneries, has been labeled a national landscape (Fin. Kansallismaisema); an aspect that needs to be taken into consideration in the planning of the area (Helsinki city planning department 2003, p. 171).

2.3 Crowne Bridges

Altering the Kruunuvuorenranta area into residential use meant that a functional solution for public transportation for the area needed to be developed. In order to fulfill the vision for land use in Kruunuvuorenranta, the chosen solution needed to be a high-quality and sufficient mode of public transportation (Helsinki City Planning Department 2003, p. 146). As an alternative for the bridges, multiple different modes of transport were looked into,

such as using bus lines to connect to the metro in Herttoniemi, extending the metro line from Herttoniemi to Laajasalo, building a bridge or a tunnel with a direct metro connection to Kamppi or using ferry traffic. Direct connection to the city center was identified as being some 10-20 minutes more efficient than connecting Kruunuvuorenranta to the city center via Herttoniemi. Ferry connections were also deemed noticeably slower. (Laakso 2002, p. 3.) In the 2002 masterplan, it seemed that a direct metro connection had been agreed upon as the appropriate transport solution. It was planned that a fixed connection would be built as early as the beginning of the 2010's between Kruunuvuorenranta and Helsinki city center. The connection would rely on trams and buses to start with, but would enable building a metro connection later on. (Helsinki City Planning Department 2003, p. 237.)

When choosing the appropriate mode of transportation, not only the effectiveness and costs of the chosen alternative needed to be studied, but also the effects of the chosen alternative on housing and premises demand, land prices and overall land use needed to be taken into consideration. The effects on land value are mostly caused by improved accessibility, which leads to increased desirability of the area. (Laakso 2002, p. 3.) The effects on land value brought on by the bridges, adjoined by the tram connections they enable, have been studied to some extent and one of the most recent reports by the Kaupunkitutkimus TA and Strafica Oy (2016, p. 39) came to the conclusion, that the bridges would contribute by a value increase of some 2.5 per cent for the existing residential building stock in Laajasalo. As for the undeveloped lands in Laajasalo, the estimated value increase was 23 per cent. These are of course just estimates, but give some idea of the significance of the bridge project. It should also be noted, that these valuations are based on the estimated amount of building rights, and the construction of the bridges also have an effect on the realized volume of building in the area, so in the fact the effect is in total even greater than just the effect on the price per square meter of building rights.

The plan for the Crowne Bridges was ultimately chosen as the right alternative, because it was seen as a viable means to secure sufficient and efficient public transportation to Kruunuvuorenranta and on a larger scale, the whole of the growing Laajasalo (Board of City Planning Department 2016, p. 2-3). The direct rail connection to Helsinki city center was recognized as having the most positive effect on the urban structure in the area, when the transport connection was executed as early as possible in the development process. This way it could play an important role in the land use, status and marketing of the area in the 2002 masterplan of Helsinki (Helsinki city planning department 2003, p. 149).

2.4 Key Actors in the Area

Development as an industry is relatively open for new actors to enter. The process itself involves many kind of actors, such as lawyers, financiers, builders, surveyors and landowners. These may operate in development on a regular basis or as a one-time event. The most crucial resource for development is undoubtedly land, making all real estate development, including residential development, highly dependent of land-owners. (Coiacetto 2009, p. 124;127.) In Kruunuvuorenranta, the land was owned by oil companies, private investors and the City of Helsinki as the planning for the residential development began (City Planning Department 2008, p. 10).

One of the key actors is the City of Helsinki. The city is a large organization and has multiple roles in a residential development process. One of the most crucial ones, is the role of

carrying out and coordinating city planning. City planning is in its core a means of state or city intervention in real estate development (Coiacetto 2009, p.124). The cities and municipalities hold a monopoly over planning in Finland. This means, the municipality alone holds the right to decide over land use within its own borders. (Hovila 29 June 2015). The planning system serves the purpose of balancing public and private interests; putting common good over a land-owners right to develop their land purely as they would please, without exaggerated restrictions (Ratcliffe et al. 2009, p. 3). Planning officials dictate where to build, in what kind of volumes and densities, and to which purpose, making real estate development, and thus residential development, a highly regulated industry. In addition to regulating development, planning also serves as a coordinator of development and constructing infrastructure. (Coiacetto 2009, p. 124).

Other important roles of the city are those of the land division, project coordination, and in the case of Kruunuvuorenranta, the entire project of the Crowne Bridges is important. Land division is responsible for making sure the land needed for the development of the city is utilizable at the right time. This might mean selling, leasing or buying lands. (City of Helsinki 2016a.)

Another highly important type of actor is the developer. Developers are the construction companies and other contracting companies, who carry the risk of the development of the land. Coiacetto (2001) has studied the behavior patterns of development companies and sees a diversity in the norms, decision making processes and values as a company. To go further into detail on different natures of developer companies is not important for the purpose of this thesis, but it is good to keep in mind that development companies are different and have different motivations.

Along with the most important actors in the area, the most important value creating factors of the area are aimed to be recognized through the empirical portion of this study. According to a study conducted in Aalto University, elements of value in a residential area can be grouped as follows: 1. Context of the area: functionality, cleanliness and affection from the residents; 2. Architecture and design: esthetic factors, compactness and size of the area, traffic connections, greenery and parks; 3. Suitability for residents, child friendliness; 4. Social aspects: privacy, social interaction and tolerance; and 5. Functionality: schools, social services, culture and free time activities, public transportation and commercial services. (Vuorela and Koskela 2012, p. 11).

For the purpose of this study, it is not necessary to name the specific companies that operate in the area. Recognizing their roles is sufficient enough. Based on these, the most central roles can be identified and their respective representatives interviewed for the empirical portion of the study.

3 Theoretical Background

This chapter will provide a theoretical background for the thesis by introducing the concept of ecosystem and elaborating on its development, its applicability in residential development and the logic of value creation within an ecosystem. The chapter is carried out as a literature review, summarizing the main findings of ecosystem literature in the past decades. The chapter is organized into seven subchapters, of which the first gives an overall introduction to the business ecosystems. The second subchapter dives into the development of the concept. The third subchapter attempts to give an idea of how the structure of an ecosystem might be organized and what kind of relationships the different actors within an ecosystem might have. The fourth chapter is briefly discussed the managerial challenges faced by a participant company in operating within an ecosystem. The fifth subchapter is focused on value creation within an ecosystem and the final two subchapters discuss the particular case of a platform ecosystem and the applicability of the concept in residential development.

3.1 Introduction to the Ecosystem Concept

Ecosystem is a biological analogy used in business for describing and managing the dynamics and value creation of highly cooperative business networks. The concept was first introduced by James F. Moore in his 1993 article Predators and Prey: A New Ecology of Business. Iansiti and Levien (2004, p. 76) described both the business ecosystem and its biological counterpart as "... characterized by a large number of loosely interconnected participants that depend on one another for their effectiveness and survival." Much like the components of a biological ecosystem, the participant companies, products and technologies of a business ecosystem are highly interdependent and can hold little meaning outside the ecosystem. A healthy, well-functioning ecosystem can bring its participants success, where a poorly functioning ecosystem is of little use to its participants and can even be detrimental. (Iansiti and Levien 2004, p. 76.)

Ecosystem is a particular business strategy where different actors work together with the purpose of maximizing value creation within the network so that all participants can achieve greater value creation, and appropriation, than they could would they choose to operate outside the network. Even competitors, who would under regular circumstances compete against each other, have the incentive to work together and increase the value for both. Pulkka et al. (2016, p.141) characterized this with a metaphor of competitors who, instead of competing over the same piece of the cake, work together to increase the size of the cake simultaneously increasing the value they each may receive. In their 2009 article Ritala and Hurmelinna-Laukkanen recognized a related phenomenon that they identified as "coopetition", where companies cooperate to create value and increase the size of the market for each network participant and later then compete for the created value. Cooperation between competitors has previously been most notable in capital-intensive fields, where the focus has been on bringing down the cost of production, distribution and marketing, by sharing the economic load. (Ritala and Hurmelinna-Laukkanen 2009, p. 819.) This approach could be seen as an incentive to utilize increased cooperation in the residential development and construction industries as well, seeing as construction is a highly capital-intensive field.

Pickett and Cadenasso characterize an ecosystem as a system in which the different components work together in interaction. Ecosystem is scale independent, meaning that an ecosystem can function regardless of its size so as long as the different actors, physical

environment and interactions can exist within it. The time span for an ecosystem is similarly not limited. (Pickett and Cadenasso 2002, p. 2-3.) However, all ecosystems have their inherent, explicit boundaries and specifications. Additionally, Moore (1993, p. 76-77) has defined four stages for the development of an ecosystem: birth, expansion, leadership, self-renewal (or death). These each present the participants of the ecosystem with their own cooperative and competitive challenges, which are further elaborated on later on. In addition it should be noted, that each ecosystem may have its own appropriate moment, especially if the ecosystem is built around a focal innovation. If the innovation is quite ahead of its time, required infrastructure is not in place or the demand simple does not exist, the ecosystem will not be as successful as it could be at a different time (Adner 2006, p. 98.) This is to say, that same conformities apply to ecosystems as any business organizations and simply operating within an ecosystem is not a be-all and end-all solution.

A cohesive theoretical framework for the concept is still lacking in the literature (Thomas and Autio 2014a, p.1). According to Pulkka et al. (2016, p. 129), there are competing definitions for the concept of ecosystem but a general consensus for a set of core features. Ecosystems by definition are focused on collective value creation. This means that value is created through the interaction of ecosystem members. (Thomas and Autio 2014a, p. 2-3.) Pickett and Cadenasso recognized the ecosystem concept as having three differing natures: it can be viewed as the technical, matter-of-fact definition of the concept, as well as employed as a model for describing how a business network functions and on the most conceptual level used as a metaphor in more informal scientific settings as well as in public discussion. The three dimensions are intertwined and often confused with each other. (Pickett and Cadenasso 2002, p. 1-2.) From this it can be concluded, that not only may the many competing definitions for the concept confuse one studying them, but it should also be made clear which dimension of the concept one speaks of. For the purpose of this thesis, the model dimension is of primary interest. The goal is to recognize a possible business ecosystem in place in residential development in Kruunuvuorenranta, and if possible, try to describe its internal relationships and its overall shape. However, in order to succeed in this, also the technical meaning of the ecosystem concept needs to be defined. In this thesis, the more conceptual aspect of the ecosystem concept is only briefly discussed and is not a focal point of the study.

3.2 Development of the Ecosystem Concept

The concept of ecosystem in the business domain was first brought forward by Moore (1993), who recognized the importance of rapid and effective evolvement for the success of any business. Additionally, the importance of having access to the required resources, including suppliers, customers and partners, was emphasized. Moore further argues, that most companies carry out a strategy where they compete for market share with their competitors, even when forging business alliances with suppliers would be more efficient and lead to greater value creation. (Moore 1993, p. 75.)

Moore borrows his key concepts from ecology, where ecosystem as a concept was first introduced by Sir Arthur Tansley in the year 1935 (Pickett and Cadenasso 2002, p. 2). Moore chooses the idea of co-evolution as a starting point for defining the business ecosystem concept. This is another borrowed concept, this time from anthropologist Gregory Bateson, describing co-evolution as “a process in which interdependent species evolve in an endless reciprocal cycle – in which “changes in species A set the stage for the natural selection of

changes in species B" – and vice versa." (Moore 1993, p. 75). Moreover, the idea of an ecosystem collapsing when the environment changes too rapidly was adopted from biology. From these starting points, Moore goes on to suggest companies be viewed not as a member of single industry, but rather belonging to a larger business ecosystem, where industry lines are crossed and companies co-evolve through cooperation and competition. (Moore 1993, p. 76.)

The success of a single participant of a biological or a business ecosystem is by definition always dependent on the success of the entire ecosystem too. One differentiation between biological and business ecosystems is found to be the fact that business ecosystems are social systems, and their structure and development is affected by decisions made by real people. The decisions are based on the information available to the decision makers (Moore 1993, p. 86). One could conclude from this, that a participant in a business ecosystem might use a strategy of withholding certain information to their own advantage and so forcing the others to make uninformed decisions. Even in less dramatic situations, one could claim that decisions made by people are not always consistent and their motivations vary, whereas nature has its own, coherent logic and "survival of the fittest" rules in every biological ecosystem. Other problems with directly linking the operations of a biological ecosystem and a business ecosystem were brought forth by Iansiti and Levien (2014, p. 76), who recognized the inputs in a biological ecosystem to be fairly predictable, whereas inputs in business are constant only in the sense that they are always changing. Corallo and Protopapa (2007, p. 62) further identify two problems with using biological analogies in economics. Firstly, they claim biological evolution to have no specific goal, whereas business is driven by catering to the needs and wants of people. Secondly, different biological species do not interbreed, but in a business ecosystem all kinds of actors can join their skills, products and ideas in collaboration to create new products and services.

Based on the fact, that ecological and business ecosystems are two separate entities, they should each have their own theoretical frameworks. There is a rather strong consensus in the research literature (see e.g. Thomas and Autio 2014a, Ceccagnoli et al. 2012, Ritala and Hurmelinna-Laukkanen 2009), that ecosystem as a business strategy still lacks a solid theoretical background. According to Thomas and Autio (2014a, p. 3) this limits the use of the concept and causes confusion as the biological analogy awakens such strong images that the phenomenon it is used to describe is overpowered. A theoretical background is needed and is the research subject of many. Thomas and Autio have themselves introduced the idea of utilizing institutional theory as a reference background for the ecosystem concept. This approach will be discussed in more depth further in this thesis. What most authors agree upon however, is the explicit focus on collective value creation, which can be seen as the single defining characteristic of a business ecosystem (see e.g. Thomas and Autio 2014a, Iansiti & Levien 2004). There is also controversy on what direction the ecosystem research should be steered to in the future. Ritala et al. (2013, p. 246) have criticized ecosystem literature as being focused on value creation rather than value appropriation. Adner and Kapoor (2009, p. 309) on the other hand noted studies on ecosystems to be focused on strategic interactions between firms and value capture and not focusing enough on actual value creation. The literature might be described as lacking most severely in research on how to combine value creation and value appropriation (Ritala et al. 2013, p. 246).

3.3 Structure of an Ecosystem

The structure of an ecosystem has been studied extensively, however a conclusive theoretical framework is yet to be achieved. Thomas and Autio attempted in their 2014 research to create such a framework, applying the institutional theory in their model, proposing the ecosystem to be the fifth facet of the organizational field, together with common industry, common technologies, social issues and social interactions (Thomas and Autio 2014a, p. 10-11). As a conclusion, the authors implied existing research on organizational fields to be applicable in understanding the dynamics of ecosystems. Similar dynamics of the role and actions of a dominant actor in the ecosystem and organizational arrangements were found. The model represented by Thomas and Autio (2014a) has been adopted in some later articles, such as by Pulkka et al. (2016). Based on the similarities of the research in this thesis and the study composed by Pulkka et al., the ecosystem frame presented by Thomas and Autio is deemed suitable for this thesis as well and is used as the base definition for an ecosystem in the thesis. The structure proposed by Thomas and Autio is further presented next.

The structure of the ecosystem was outlined by Thomas and Autio (2014a) to be made up of three main characteristics: the network of participants, governance and shared logic. The network of participants defines which actors are included in the ecosystem and what are the inputs they bring to the equation. Consequently, the network of participants and its internal relationships directly affect the value creation in an ecosystem. (Pulkka et al. p. 138.) In a well-functioning ecosystem, the inputs of the different actors should be complementary to each other for maximum value creation (Thomas and Autio 2014a, p. 13).

The governance system coordinates the operations of the ecosystem participants. On a more detailed level, the governance system also dictates which actors may participate in the ecosystem and to what extent. The governance system is the decision-making body of the ecosystem, directly affecting the network of participants. The governance system has an indirect effect on value creation within the ecosystem. (Thomas and Autio 2014a, p. 15.)

As the final characteristic, shared logic includes the commonly shared justification for the ecosystem, explicit awareness of the network one is a part of and the shared goal that the entire ecosystem is working towards (Thomas and Autio 2014a, p. 19-20). It also helps lay down the ground rules, societal and internal for the ecosystem, directly affecting the network of participants through affecting how they may use their inputs. Both the governance system and shared logic affect the network of participants directly and value creation indirectly. (Pulkka et al. p. 138). Thomas and Autio (2014a) have further divided their three-fold model into three sub-characteristics. These are presented in the figure below and elaborated more closely further on.

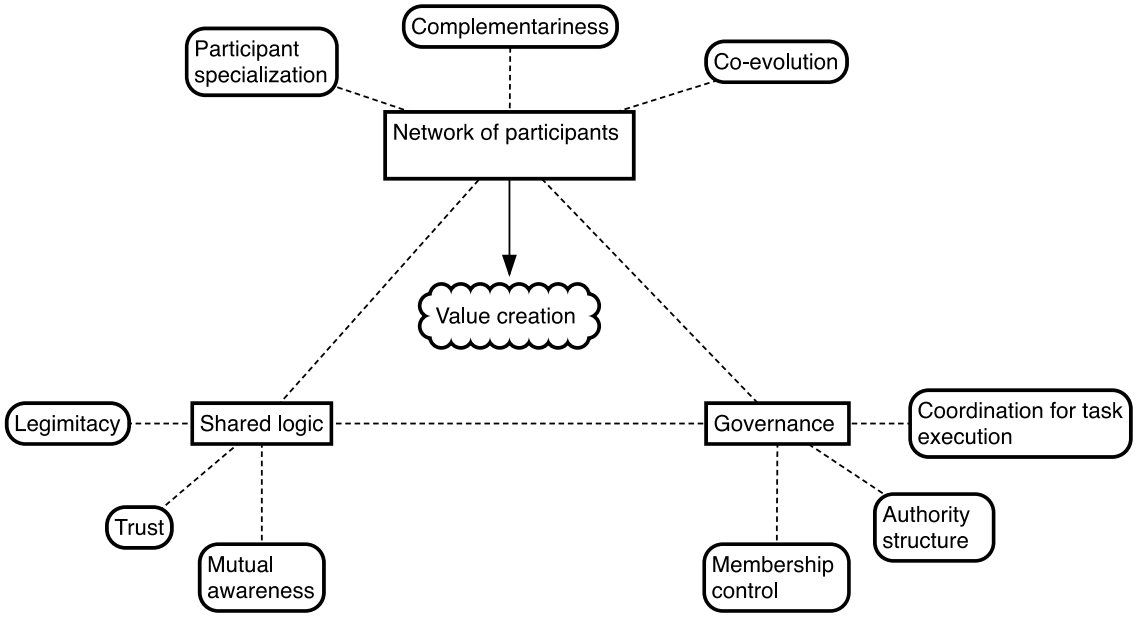

Figure 1 Main characteristics of an ecosystem and their internal connections. Adopted from Thomas and Autio (2014a) and Pulkka et al. (2016)

3.3.1 Network of Participants

According to Thomas and Autio (2014a), an essential aspect of an ecosystem is its comprising of interdependent participants. Value within an ecosystem is created non-linearly and through synergistic, cumulative interaction between the network participants. Each participant provides a specific component and the end result is made up of the combined efforts of all the network participants. From this the two first two defining characteristics for an ideal network of participants can be concluded; the participants are specialized in their efforts and their inputs are complementary to each other. (Thomas and Autio 2014a, p. 12-13.)

The third and last characteristic mentioned by Thomas and Autio is co-evolution. The importance of co-evolution was already emphasized by Moore (1993). Co-evolution takes place as the participants and the entire ecosystem react to changes in their business environment. It results from the shifting focuses on competitive and cooperative challenges (Moore 1993, p. 76).

3.3.2 Governance System

The governance system coordinates the operations of the network participants (Thomas and Autio 2014a, p. 15, Gulati et al. 2012, p. 581). It consists of authority structure, membership control and task coordination. Authority structure is a direct result of the power differences between the network participants. Every participant has its own niche in the ecosystem, leading to a certain power position in relation to the other participants. These power imbalances together with the differing degrees of interdependencies between the participants constitute the authority structure. (Thomas and Autio 2014a, p. 15.)

The second characteristic is membership control, i.e. how open or closed the ecosystem is to new participants. This covers who makes the decisions on membership, on what criteria and for how long a time period the membership is granted. Membership control is important also for task completion. If participants can enter and exit freely, unwanted inputs may be gained but also some contribution that would be crucial to the end-result may end up being lost. (Gulati et al. 2012, p. 576.)

3.3.3 Shared Logic

The final characteristic is shared logic, which is needed to enable a smooth coexistence between participants with differing internal logics. It comprises of legitimacy and meaning. (Thomas and Autio 2014a, p. 18-19.) Legitimacy here can be further divided into socio-political and cognitive legitimacy, or alternatively, external and internal legitimacy. Socio-political legitimacy includes the external acceptance of the ecosystem from the point of view of key stakeholders, opinion leaders and the entire wider society. One angle of this is to make sure the ecosystem has been established and is operating along the legal guidelines set in its country of operation. Furthermore, socio-political legitimacy can manifest itself as demand from large and notable clients within the industry or endorsement from key stakeholders or even government bodies. Cognitive legitimacy encompasses the internal justification for the ecosystem, i.e. what are the purpose and goals of the ecosystem. It is formed as a product of the ecosystem's operations, its internal sense-making and the roles of the participants within the ecosystem. (Thomas and Autio 2014a, p. 19-20.)

In addition to legitimacy, also trust is required. Trust enables the excessive exchange of information within the ecosystem that is a precondition of true collaboration in an ecosystem. (Thomas and Autio 2014a, p. 21.) The importance of trust is also evident when estimating what the benefit from collaboration is to a participant. Trust between the participants affects the expectation value and risk calculations of the network participants. (Gulati 2012, p. 574.)

The final component of shared logic is mutual awareness. By definition, ecosystems are highly cooperative business networks with an explicit focus on joint value creation (Moore 1993, Thomas and Autio 2014a). This already implies, that mutual awareness of the different network participants is required. Mutual awareness is necessary for every aspect of the internal organizing of the ecosystem, as well as for intra-ecosystem communication and determining a common course of action. (Thomas and Autio 2014a, p. 21.)

3.3.4 Modeling the Network of Participants

The network of participants is the one characteristic directly affecting value creation. It is also the physical dimension of the ecosystem, which we can try to describe through the participants and their relationships with one another. Iansiti and Levien (2004, p. 70-71) have described an ecosystem of being made up of a hub firm, the companies the hub firm has outsourced business functions to, finance institutions, firms that provide the necessary technology for the hub firm's production, as well as makers of complementary products that are used together with the products of the hub firm. In their views on which participants to include in an ecosystem, Iansiti and Levien (2004) focused on whether a participant identifies as belonging to the ecosystem or not, and further stated ecosystem boundaries to be hub firm specific. Competing boundary views have been presented by e.g. Adner and

Kapoor (2009), who interpreted an ecosystem to consist of only those participants (suppliers, complementors, customers) separated from the focal firm by a single network link.

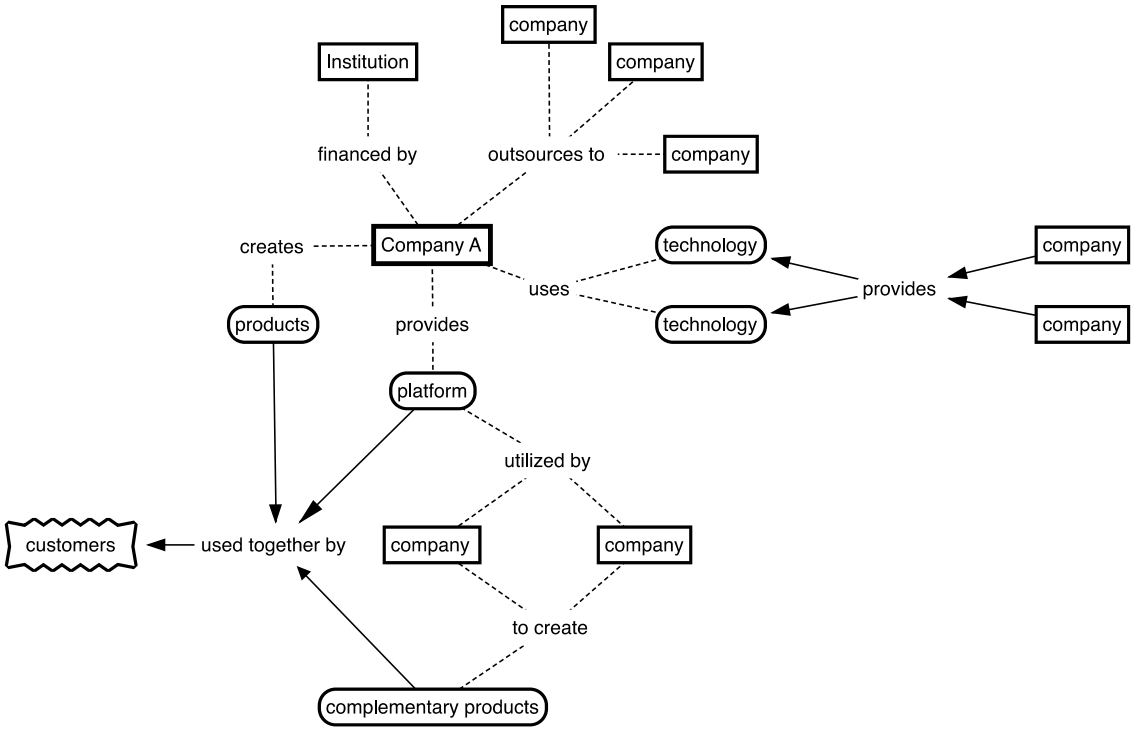

Figure 2 Simplified structure of a network of participants, based on Iansiti and Levien (2004)

Nonetheless, defining which actors are included in a certain ecosystem is not particularly straight-forward and determining the exact dimensions of an ecosystem would be practically impossible and would require considerable effort at best. Iansiti and Levien (2004, p. 71) suggest the best way to analyze the ecosystem one is participating in, is to recognize the organizations that have the most significant effect on one's own business operations in the future and identify the dependencies that are most significant to one's business. Subdividing a complex ecosystem can help in getting some idea of the ecosystem's scale and nature. It should be noted, that most research emphasizes the interdependency of the network participants (see e.g. Moore 1993, Iansiti and Levien 2004, Thomas and Autio 2014b). Iansiti and Levien stress this and remark the fate of any individual network participant goes hand-in-hand with the fate of the entire ecosystem (2004, p. 69). Adner and Kapoor (2009, p. 309) elaborated on this further and claimed the distance of any actor from the focal firm as well as their position in the ecosystem otherwise to have an effect on the actor's value creation.

How are the companies within an ecosystem then linked to each other? An example of an interfirm relationship within an ecosystem could be coopetition. The term is a portmanteau of the words cooperation and competition, and it is used to describe unconventional collaboration between otherwise competitive actors. The goal is added value creation within their business field. The participants then proceed to compete over the created value. (Ritala and Hurmelinna-Laukkanen 2009, p. 819.) Coopetition can be a strategy executed by ecosystem participants, but is not a necessary part of an ecosystem and the two terms, coopetition and ecosystem, should be recognized as separate entities. Moore (1993, p. 76)

discovered a constant interplay of competitive and cooperative business strategies to take place between the different actors in an ecosystem.

According to Adner and Kapoor (2009, p. 309) a distinction between components and complements is necessary to make. Components are a part of a product and can be produced according to a conventional value chain. Complements on the other hand are not necessary for using the focal product, but which bring added value to the user when used together.

3.4 Evolving in an Ecosystem

According to Moore (1993, p. 76), a business ecosystem starts up as quite random and develops over time into a more structured community. This evolvement is proposed to happen as the participants develop in four distinct stages: birth, expansion, leadership and self-renewal - or death. What Moore most emphasizes is the importance of co-evolution, and how the member companies choose to tackle the different cooperative and competitive challenges faced in each stage. (Moore 1993, p. 76.) Co-evolution happens as a product of the choices made and actions taken. Changes in the business environment force ecosystem participants to act, leading to different developments, progress and more changes. This cycle of changes in the surroundings and the necessary evolvement that follows from reacting to those changes lead to what Moore refers to as co-evolution. (Moore 1993, p. 76.)

Each phase sets its own cooperative and competitive challenges for an ecosystem participant. According to Moore (1993, p. 76) the main cooperative challenge in the birth stage is working together with customers and suppliers to define as clearly as possible the value proposition around a new product or service. As a competitive challenge, Moore mentions the importance of protecting the product and any related proprietary rights. Moreover, securing collaboration with key actors such as major customers, key suppliers and other important channels. (Moore 1993, p. 76.) Gawer and Cusumano (2008, p. 28) emphasized the importance of making the decision on whether a company wishes its new business idea to be a product, or else become an industry platform, early on in the development.

During the expansion phase, the cooperative challenge is getting the new product onto a larger market. This happens through working together with suppliers and other partners to achieve larger scale and maximum market coverage. The competitive challenge comes from battling alternative solutions offering the same value. The goal is to achieve the status of market standard by dominating key market segments. Its own challenge comes from stimulating market demand so that the demand would meet the production capacity without greatly exceeding it. (Moore 1993, p. 77, 79.) In the leadership phase, main cooperative challenge is providing your collaborators with a compelling vision for the future in order to encourage continued efforts in improving the whole offering. Competitive challenges include maintaining strong bargaining power.

The last phase is self-renewal, or death, and in this phase the company faces the cooperative challenge of working with innovators to develop new ideas for the existing ecosystem to keep their customers committed. The respective competitive challenge is maintaining high barriers of entry for competing schemes. Maintaining high customer switching costs allows for more time to react to demands for improvement in the ecosystem. Death is imminent if an ecosystem, or a participant thereof, is unable of renewing. (Moore 1993, p. 77.)

There are industries, that have reflected the ecosystem logic from the get-go, but some industries have been forced to endure the shift from the traditional supply chain logic to the ecosystem scheme. Gawer and Phillips (2013) have studied the ways in which a company can respond to the shift and even manage to become the platform leader. Their research recognizes four types of institutional work necessary for a successful logic change: external practice work and legitimacy work at the field level and internal practice and identity work within the organization. (Gawer and Phillips 2013, p. 1037.) The types of institutional works required can be seen to match the four facets of an organizational field brought forth by Thomas and Autio (2014a, p. 3), which they recognized being common industries, common technologies, social issues and the market.

The bulk of any ecosystem is made up of niche players (Iansiti and Levien 2004, p. 73-74), who benefit from a highly specialized expertise setting them apart from their rivals. Additionally, all ecosystems have "focal firms" or "hub firms" (Thomas and Autio 2014a, p. 5). Moore (1993, p. 76) referred to such as a company as the ecosystem leader. Iansiti and Levien (2004, p. 76) has broken down the possible roles for an ecosystem participant in more detail, and has introduced three possible roles: niche player, keystone organization and physical dominator. Keystone organizations are in charge of keeping the ecosystem healthy. This is done through actions that help advance the three features of a healthy ecosystem: productivity, robustness and niche creation. Keystone organizations are willing to settle for a smaller share of the ecosystem's value for the greater good of the network. However, some actions might also cause other ecosystem members losses for the benefit of the ecosystem. Physical dominators on the other hand strives to control those resources most useful to them. Niche players fill highly specialized complementor positions in an ecosystem. (Iansiti and Levien 2004, p. 73-75). None of the roles is innately better or worse, but it is important to choose the right role for the expertise of the company as well as the maturity of the ecosystem. With the strategy of physical dominator, comes the danger of too much of the value creation falling into the same hands. In this kind of a situation, it is no longer meaningful to talk of an ecosystem. (Iansiti and Levien 2004, p. 75.)

3.5 Platform Ecosystem

Ecosystems are most often categorized as business (or industry) ecosystems, innovation ecosystems and platform ecosystems based on the ecosystem's own internal logic. Business ecosystems include all aspects affecting the focal business (Iansiti and Levien 2004, p.70) Value creation in an innovation ecosystem is similar, but the combined efforts are focused on combining the inputs of multiple participants to form a new, innovative product or service (Ritala at al. 2013, p. 246).

The platform ecosystem is differentiated from this by forming around a shared technology, standard or other assets that may serve as a platform for developing new products or services (Thomas et al. 2014, p. 5). New innovations are possible, and even implied, however the defining characteristic is the importance of the platform asset. The actor who has ownership of the platform product is often referred to as the platform owner (see e.g. Gawer and Cusumano 2008). Other participants in the ecosystem aim to produce complementary products and are most often referred to as complementors or complementary participants (see e.g. Gawer and Cusumano 2008, Gulati et al. 2012). The platform owners often encourage the development of complementing products and can even provide tools for this (Srnicek 2016, p. 33). Seeing as a platform may be any asset with the ability to induce a

business ecosystem to form around itself, a location or a brand for a residential development could also be seen as a platform of some sort. This was actually implied by Pulkka et al. (2016, p. 140) in their study as "creating a platform between the buildings, which is the identity and values of the area".

As is the case with the concept of ecosystem, platform as a term is not at all unambiguous. Cusumano (2010, p. 32) noted the concept of platform to have multiple definitions and to be difficult to grasp. Confirmation is received from Thomas et al. (2014) who, based on their extensive literature review on the platform concept, concluded there not to be a dominant definition to be found within the literature. This is perceived to be caused by the complexity of the concept as platform ecosystems incorporate concepts from multiple streams of literature. (Thomas et al. 2014, p. 204.)

As a critical defining characteristic for a platform ecosystem, Cusumano mentions the formation of "network effects"; positive feedback loops created by increases in the adoption of the platform and its complements. The value of the ecosystem and its participants increase with the increase in the number of complementors attributing to the ecosystem. (2010, p. 33.)

West and Wood (2014, p. 28) characterized platforms as "standardized components" or clusters thereof, that attract buyers and sellers to coordinate their efforts. Srnicek (2016, p. 33) recognized the most basic function of a platform as enabling different actors to interact with each other. Platforms can therefore be seen as intermediaries between different stakeholder groups. Another definition, by Iansiti and Levien (2004, p. 69), understood platforms as services, tools or technologies that can be utilized by the ecosystem members to improve their business. Not every product has what it takes to become an industry platform. According to Gawer and Cusumano (2008, p. 29), in order to have potential to become a platform, a product needs to fulfill at least two criteria: it needs to be necessary for a key function or solve a central problem within the ecosystem, and it needs to be easily built upon in order for the ecosystem to have opportunities to grow.

Platforms are further categorized into industry and product platforms (Gawer and Cusumano 2008, p. 28). An in-house platform is a foundation or a base onto and around which a company may build a business or products. A platform may also be industrywide, as opposed to in-house. (Cusumano 2010, p. 32.) For the general public, the term is probably most familiar from the high-tech industry, where especially the modern mobile phones form a platform for a variety of different applications, services and merchandise. These additional services or products to the platform are referred to by Ceccagnoli et al. (2012) as complementary innovation. Platform owners can gain notable value by encouraging complementary innovation (see e.g. Moore 1993, Gawer and Cusumano 2008). Allowing a product to become an industrywide platform requires opening up the technology for the complementary innovators in addition to making the platform desirable for them. Economic incentives may be used to aid in inducing complementary innovators to join the ecosystem and adopt the platform technology. (Cusumano 2010, p. 33.) Platforms compete not only for the end-users but also for the producers of complementary products and services. This is referred to as a "two-sided market" (Cusumano 2010, p. 34).

What separates an industry platform from a mere product is that a platform is used by and necessary for a whole network of interdependent companies. A product is proprietary to and largely under the control of, a single company, who can also, to some extent, dictate how the

product is being marketed, sold, developed etc. (Gawer and Cusumano 2008, p. 28.) Especially companies working in the high-tech industries such as information technology are considered to be most successful when they succeed in making a product, which becomes an industrywide platform (Cusumano 2010, p. 32).

According to Ceccagnoli et al. (2012, p. 263), the different additional efforts of the complementors add to the functionality to the platform. Cusumano (2010, p. 32) on the other hand stated the platform to have little value to an end-user without the complementing products. With a platform, it's as if the platform owner would provide the soil for a garden, but the multiple complementors brought their own seeds, water and nutrients and the end-product would be the produce, that would be most desirable for the customer. Seeds, nutrients and soil have value on their own, but the produce is the most valuable.

For the complementors, platforms provide a basic infrastructure for operations. This means the complementors can focus on their core business without having to build a market for themselves from scratch. Platforms already have a connection to the users, which the complementors can then take advantage of. (Srnicek 2016, p. 33.) Platform ecosystems can hence be considered beneficial for both the platform owner and the complementors.

3.6 Value Creation in an Ecosystem

How exactly does operating within an ecosystem affect the value creation and why? These are questions without clear answers, but some ventures have been made based on conducted research. From related concepts, Ritala and Hurmelinna-Laukkanen suggest that coopetition would yield different benefits for value creation than collaboration between non-competitors would. In any case, to reap the benefits of interfirm cooperation, the logic of value creation and value appropriation must first be understood (Ritala and Hurmelinna-Laukkanen 2009, p. 819-820). Seeing as in an ecosystem collaboration takes place between competitors as well as complementors, this can be concluded to be true for an ecosystem too. Ritala et al. recognized value being created in interaction and is more often than before connected to business solutions than just technological advances (Ritala et al. 2013, p. 246).

Traditionally value creation has been seen as a chain where suppliers provide inputs, these are added value to by a company before sending them forward to the next link in the chain, whether it be another company or an end-user. In this kind of a value chain, positioning oneself in the link was the most important strategic choice. In a modern ecosystem, however, the strategic choices include positioning oneself in the network, in relation to the other actors in the network and defining the extent of collaboration with the other network participants. It should be noted that this is a continuous process. (Normann and Ramírez 2000, p. 65-66).

According to Thomas and Autio (2014a, p. 13-22) nine propositions on value creation within an ecosystem can be made based on their model of how an ecosystem is perceived. Value creation is stated to be more likely in an ecosystem where the participants are specialized, their inputs are complementary and the participants experience co-evolution. Additionally, value creation is promoted by having an authority structure, membership control and task coordination of participants (Thomas and Autio 2014a, p. 16-18). Furthermore, both socio-political and cognitive legitimacy as well as trust among the participants are beneficial for value creation, as is mutual awareness of being engaged in a shared endeavor of collective value creation (Thomas and Autio 2014a, p. 20-22).

In a study conducted by Kapoor on companies operating in semiconductors, collaboration with complementors was found to have the most positive effect on the performance of the focal company's product. Effects on increasing market share in existing markets was moderate and gaining customers in new market segments was meagre. Kapoor also studied the effects of managing collaboration with complementors in three different ways: managing the relationship through engineering or marketing units or through a dedicated organizational unit. More collaboration was found to take place when the relationship was managed by a dedicated unit, however the effect on value creation was non-existent. Increasing joint value creation from the collaboration would require changes in the internal structures and processes of the company as well. (Kapoor 2014, p. 5-6).

Adner and Kapoor recognized asymmetries in value creation and capture within an ecosystem based on a company's internal positioning within the ecosystem. Asymmetries in value creation also impact value capture and competitive advantage.

In order for an ecosystem to be able to continue on creating value for its participants, it must be functioning properly. Iansiti and Levien (2004, p. 72-73) have come up with three criteria for a healthy ecosystem. First, it must be able to consistently transform inputs into lower costs and new products. An ecosystem must also be able to face any environmental changes it may encounter. This leads to what Moore (1993) identified as co-evolution as the participants of an ecosystem adopt and evolve as a result of changes in the business environment (p. 75). The third criterion Iansiti and Levien identified is the ability to create meaningful diversity through presenting new niches for the participants (2004, p. 73).

Collaboration can also help bring about new innovations and thus lead to increased productivity, leading ultimately to higher value creation (Iansiti and Levien 2004, p. 70). Burt (2004, p. 349) suggested new ideas and innovations to be more likely near the edges of homogenous groups. Interaction between different groups would then lead to new innovations more likely than without contact to groups outside one's own niche. To take the most out of a new technology or innovation, a company should be the technology leader in their industry and introduce new innovations to the industry first (Adner and Kapoor 2010, p. 306).

3.7 Applying the Ecosystem Concept to Residential Development

The ecosystem concept has most extensively been utilized in high-tech industries (see e.g. Pierce 2009, Adner and Kapoor 2010). No studies were found on applying the concept to residential development. However, a study conducted by Pulkka et al. (2016) sheds light onto how well the concept may be applied in the construction industry. Pulkka et al. conducted an extensive literature review as well as a case study to determine the effect of applying the ecosystem mentality in a construction project on the success of the project. Success was measured both based on whether or not the project reached its goals and how well the network functioned throughout the construction. (Pulkka et al. 2016, p. 129.)

Potential was found for the concept to be utilized as a basis for a shared, system-level management framework in construction networks. (Pulkka et al. 2016, p. 141.) Furthermore, Pulkka et al. claim that the ecosystem offers a "comprehensive, well-structured concept for analyzing value creation that builds mainly on existing practices." Furthermore, it allows for

holistic analysis of value creation, whereas most other organization theories fail to accurately represent the complex industry. (Pulkka et al. 2016, p. 141.) Those construction networks that best fit the ecosystem characteristics were found to be the most successful (Pulkka et al. 2016, p. 141-142). This also coincides with the views of Iansiti and Levien, who state that success is less dependent on a company's internal capabilities and more on the network it functions in (Iansiti & Levien 2004).

The need for research of value creation in residential development is backed by Roulac et al. (2006, p. 474), who recognized the paradoxical lack of research on value creation in real estate development. Paradoxical because even though value creation is widely recognized as the end goal of real estate development, the process of value creation itself has not been studied to a sufficient extent.

3.8 Theoretical Framework for the Thesis

Seeing as the aim of the thesis is to increase knowledge on value creation in residential development, and to further study the applicability of the ecosystem concept, as well as recognize main elements of value in residential development, it can be concluded that the theoretical framework for this thesis is the made up of the ecosystem concept, value creation and residential development.

Ecosystem for the purpose of this thesis is defined as a highly interdependent network of participants working towards a shared goal. The concept has been presented in more depth in the previous subchapters, and the model that has been chosen to be used in this thesis is the one presented by Thomas and Autio (2014a), consisting of the network of participants, a governance system and shared logic. Based on the three-fold model, the characteristics of the ecosystem are intended to be recognized from the Kruunuvuorenranta project, if there are any to be found.

According to Roulac et al. (2006, p. 476), value in real estate development can be created, or destroyed, by four different kinds of forces: physical, political, economic and social. When studying the elements of value in Kruunuvuorenranta, the interest is on all of these types. Furthermore, the forces forging value are of more interest than the value itself. The purpose is not to produce any specific estimates of actual value effects, but merely to recognize those factors that are contributing, or diminishing, value in the residential development project. These factors in this thesis are referred to as value creating factors or elements of value. Of special interest in this case is the value creating effect of the Crowne Bridges. Furthermore, the current level of collaboration is interesting for this thesis, as it can function as an indicator of possible ecosystem in place. The attitudes towards the level of collaboration in the future is also included, as the attitudes towards collaboration also reflect the attitudes towards ecosystem thinking.

Value creation in this thesis is focused on value creation in an ecosystem and the value creating characteristics of an ecosystem. Therefore, also those value creating mechanisms that are in place in ecosystems are included in the thesis. These include creating value through savings in both time and resource inputs as well as through better quality in the product and end-result. Furthermore, synergy benefits may present themselves in ecosystems for example as new innovations, leading to increased value creation.

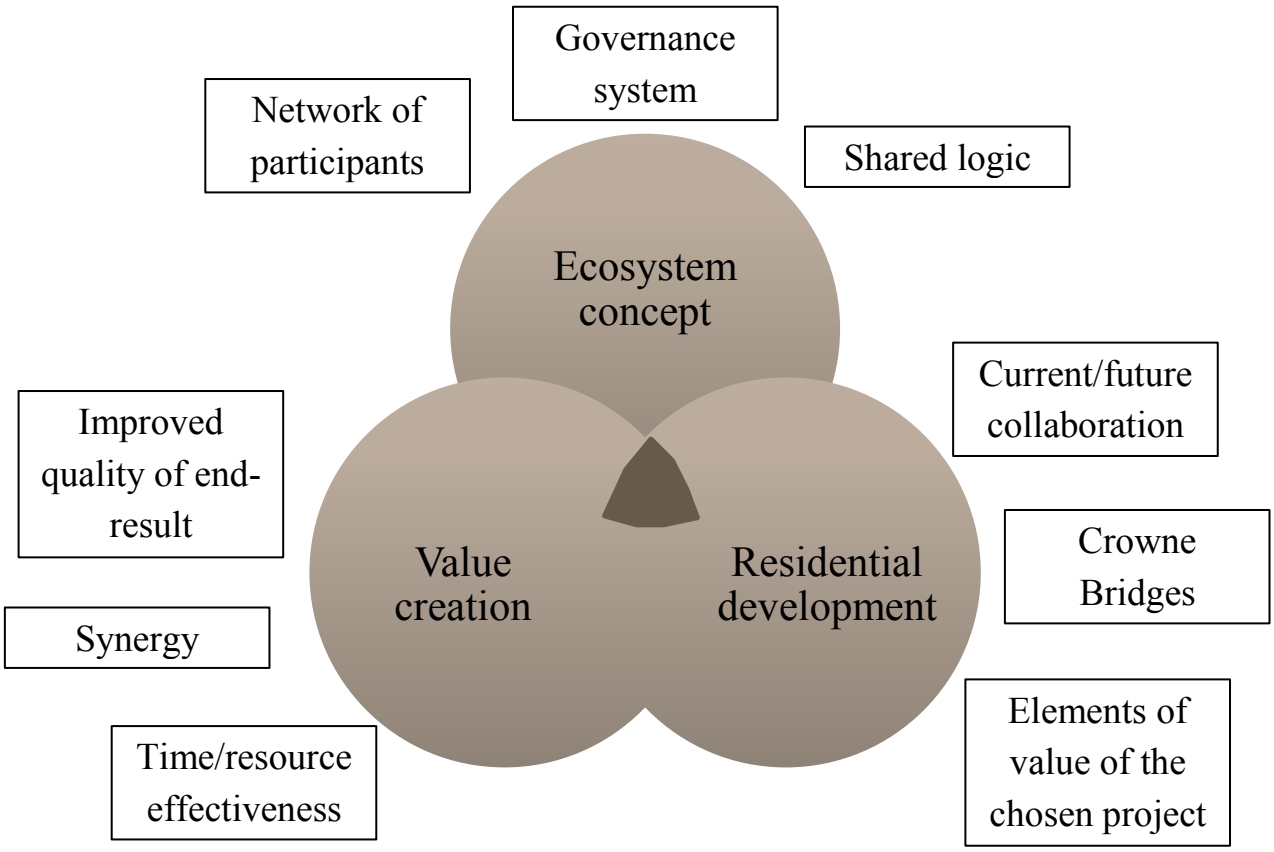

Figure 3 Theoretical framework for the thesis

The exact focus of this thesis is in the intersection between ecosystem, value creation and residential development. Namely in the ways operating within an ecosystem affects the value creation in residential development. Additionally, the explicit effect of one element of value in particular, namely the Crowne Bridges project, is of special interest. Therefore, the exact focus point of the thesis can be seen to be the point where these three meet, as is presented in Figure 3. Surrounding the main theories and concepts of the thesis in the figure are some of the most important themes including to them.

As a product of this study, it is hoped to be able to give a report on what the most important value creating elements in Kruunuvuorenranta residential development are. Additionally, the possible application of the ecosystem concept is of interest and especially how applying the ecosystem concept might affect the value creation.

4 Interview Study

In this chapter, the conducted empirical research is presented along with its methodological background. The general concept of qualitative research is introduced, specifically focusing on interview studies. The purpose is to give an overview of interview studies as a research method and to justify choosing said method for the purpose of this thesis. Along with the methodological background and justifications, the practical aspects of the interview study are presented in this chapter. The actual results of the study are saved for the next chapter.

4.1 Methodology

The empirical part of this thesis was carried out as a semi-structured interview study. This was seen as an appropriate method for studying a fairly new topic. Seeing as the interviewees represent a selection of different organizations, a semi-structured interview was considered most appropriate, seeing as it provides some freedom with the exact wording and order of the questions (Eriksson and Kovalainen 2011, p. 4-5).

4.1.1 Qualitative Research

Defining qualitative research is not exactly an easy task. It is most often done through comparison with quantitative research, which dominates most scientific research. Qualitative research strives to understand the reality as a social construct, affected by culture and politics. The main focus of qualitative research is therefore oftentimes in interpretation and understanding of a phenomenon, whereas quantitative research is more focused on giving explanation, testing hypotheses and statistical analysis. Furthermore, qualitative research is considered especially relevant for studying subjects that have previously not been researched extensively, in order to gain a more holistic understanding of the phenomenon. Quantitative research often follows, trying to give more in-depth insight into the subject and its inner workings. (Eriksson and Kovalainen 2011, p. 4-5.) There have previously been both qualitative (see e.g. Kapoor 2014) and quantitative research done on ecosystems, but seeing how applying the ecosystem in residential development is quite new, a qualitative research method was rendered more useful for the purpose of this study. Furthermore, qualitative research in a business setting aims to shed light on how things work in actual business contexts, why they work in that way and how they might be improved upon (Eriksson and Kovalainen 2011, p. 3). Also from this point, it can be said that a qualitative approach was correct for this study, as the goal of the thesis is to understand how ecosystems work and how they could be applied in residential development to enhance the process and bring added value creation.

One defining character for qualitative research is the way data collecting and data analysis are intertwined. In the process of collecting data, i.e. during the interviews, the researcher is likely to start already organizing the data in their head, categorizing the data and internally cross-referencing it with the information they have already gained from the literature review. (Eriksson and Kovalainen 2011, p. 299-300.) Such is the case with the current research as well. While conducting the interviews, the analyzing process already started and each interview also helped shape the next one into even more optimized shape and form.

4.1.2 Interview Studies

Interview is a tool for collecting empirical data. Interviews are most often carried out as face-to-face conversations, however they may also be conducted over the phone or via computer-mediated technologies. What differentiates an interview from a mere discussion is that the interviewer prepares at least some of the questions beforehand and later analyses and processes the collected information in a previously designated way. (Eriksson and Kovalainen 2011, p. 78.) Interview studies can be a convenient way of collecting information that is not available in print format (Eriksson and Kovalainen 2011, p. 80). Interviews can also be used to collect data that is not measurable. Interviews have widely been accepted as a means to gather information on for example people's actions, beliefs, values, attitudes and motives. (Foddy 1993, p. 2.)

Interview studies can be divided into three groups based on the type of interview questions and approach used. These groups are positivist, emotionalist and constructionist. Positivist interviews are mostly interested in facts and are typified by presenting same questions to all the interviewees in order to cross-reference their answers and get a comprehensive image of the phenomenon. Focus is on bringing the pieces together from multiple interviews and forming a bigger picture. Emotionalist interviews on the other hand are more inclined towards studying how a certain phenomenon is experienced by different people. Appropriate interview questions would be focused on the interviewees' own perceptions and viewpoints. Lastly, constructionist interview studies approach the interview more from an interactive point of view, where the contact between the interviewer and the interviewee is also under examination. (Eriksson and Kovalainen 2011, p. 79-80.)

Interview questions can also be divided between open and closed questions, where closed questions have a specific set of possible answers to them, such as yes-no questions. Open ended questions provide the interviewee with more flexibility in their answers as well as more control over what they choose to include in their answers. In addition to the openness or closeness of the questions, it should be ensured that the questions are neutral and not leading the interviewee in any certain direction, to secure a reliable research. (Eriksson and Kovalainen 2011, p. 83-84.)

In addition to their approach, interview studies are also categorized based on their structure. Interviews can either be structured and standardized, guided and semi-structured or completely unstructured, informal and narrative. The most structured interviews are only considered qualitative if the answers given are open-ended. Structured interviews have very little flexibility in the wording of the questions and are most useful when trying to minimize variety in answers or when the interviewees are less knowledgeable. Structured interviews also enable the most systematic comparison of the answers received. Semi-structured and guided interviews have a basic structure of questions, but their precise wording and order may vary from interview to interview. (Eriksson and Kovalainen 2011, p. 81-82.) However, some definitions of semi-structured interviews don't include the possibility of changing the order of questions (Saaranen-Kauppinen and Puusniekka 2006). The third type of interview studies are unstructured, informal, open or narrative interviews. These type of interview studies are most useful for a broad and intensive investigation of a given subject. The amount of structure can vary, and in the most unstructured cases the interviewer simply lets the interview situation unfold spontaneously. (Eriksson and Kovalainen 2011, p.82.)

For the purpose of this thesis, the semi-structured interview study was chosen as the research method. This type of interview was considered to give the possibility to have a structure to the interview and to keep the discussion on topic without too much restriction. It was seen beneficial to leave some freedom for the discussion to flow freely, as this gives the opportunity for the interviewee to also lead the conversation into a desired direction. Letting the interviewees have some control over the interview's course allowed for also those value factors to come into light, that were not necessarily asked about.

4.1.3 Reliability of the Research

Reliability marks the extent to which a research method or procedure would consistently produce the same result as the process is repeated (Eriksson and Kovalainen 2011, p. 292). A possible pitfall for the reliability of any interview research are communication breakdowns. In order for an interview to yield reliable results, the questions must be understood by the interviewees as the interview had intended them to be understood and the interviewer on the other hand must understand the answers given in the way the interviewees intended their answers to be deciphered. If this fails, the answers received from each interviewee cannot be considered comparable amongst each other. Furthermore, the analysis of answers might be false, if the interviewer interprets the answers incorrectly. (Foddy 1993, p.17.)

Additionally, reliability may suffer due to any of the following: a lack of effort or interest from either party of the interview, the interviewees reluctance to admit to certain actions or attitudes, stress in the interview situation affecting the interviewee's ability to answer precisely, or any error on the interviewer's side such as failure in presenting the questions or deficient use of recording procedures. Even minor changes in the wording of questions have been known to cause major differences in answers received. (Foddy 1993, p. 2-4.)

In the thesis, reliability of the interview studied was regarded in the formulating of the interview questions, so that they would be as unambiguous as possible. This was seen as a way to prevent communication breakdowns, which pose a threat to reliability. If the interviewer and interviewee have different understanding on what is being asked, the answers given are not responding to what the interviewer is trying to ask. Another possible pitfall is misinterpreting answers. As for this, no anticipatory actions can be taken, but in any unclear situations the interviewees should be asked to clarify their given answers to make sure they are being understood correctly. It should also be made sure none of the questions are leading, so as to avoid affecting the answers.

Each interviewee is given the same information on the study at hand before agreeing to participate. Furthermore, participation in the interview study is voluntary for the interviewees, which would propose that they are all motivated to take part in the study. This aspect of reliability is therefore not examined more closely, but it is assumed that neither the interviewer and the interviewees are suffering from lack of effort or interest. The interviewer in the study must naturally pay close attention so that they maintain the same degree of involvement and enthusiasm in all of the interviews as not to affect the mindset of the interviewees differently in the individual interview situations.

Any failure in presenting the questions or use of recording procedures are to be avoided. All of the interviews will be recorded with an electronic audio recorder, if not preferred

otherwise by the interviewees. This will ensure that all the data collected in the interviews can be analyzed in the same detail after the actual interview situation. Audio recording is suggested to be a good method of recording the interviews in qualitative research literature (Rabionet 2011, p. 565). Recording of interviews, both audio and video, is also seen as a reliability increasing factor, as it provides the possibility of revisiting the collected data, and conducting further research on it (Saaranen-Kauppinen & Puusniekka 2006).

One possible threat to the reliability of an interview study was also recognized as being the unwillingness of the interviewees to expose the true nature of things (Foddy 1993, p. 17; Saaranen-Kauppinen and Puusniekka 2006). This was mainly seen as a problem when studying more delicate topics, and seeing as the nature of the current study is highly neutral, there is no reason to believe any of the interviewees would hide withhold any relevant information intentionally.

4.1.4 Validity of the Research

Validity measures the extent to which a study succeeds in assessing or describing the research subject. Put simply, validity depicts how true the statements made are and by stating research results as valid is to simultaneously state them to be true. This kind of statements need to be backed by evidence. It's advantageous to keep in mind that the relevance of validity in qualitative research differs from that of quantitative research. In qualitative research validity describes more the correctness of the research report. (Eriksson and Kovalainen 2011, p. 292)

As is the case with reliability, also validity can be determined from both the point of view of the research method chosen, as well as from the point of view of the conclusions drawn from the gathered research data. Validity is good when the target group and the questions of the study are correct and appropriate for the phenomenon under examination. The research frame must suite the research problem, and the method needs to be chosen in accordance with the type of information one wishes to excerpt from the study. (Hiltunen 2009.)

Validity in essence can be evaluated based on how appropriate the research frame is for the subject of the research and the type of information the study is hoped to provide. Seeing as in this thesis, mostly unformal, unprinted and experience-based information is aimed for, the semi-structured interview method is deemed appropriate for the empirical study.

Also, choosing the target group for the study is important for the validity of any research. In this study, the interviewees were chosen from experts of the subject matter and from a wide range of different job descriptions, titles and roles in the project to get as broad a picture of the subject as possible in order to improve validity of the research.

4.2 Goals of the Interviews

To understand if there is, or could be, an ecosystem approach used in Kruunuvuorenranta, interviews were utilized. The goals on a higher level were to identify the existing interdependencies of the different actors involved, to define what value drivers each actor recognized, and to specifically study the perceived importance of Crowne Bridges among the key actors in the area. An underlying goal was to assess whether or not

Kruunuvuorenranta could be considered a platform around which an ecosystem might form. On a more detailed level, recognizing a possible platform owner or keystone player was attempted.

Furthermore, determining the current level of collaboration, attitudes towards collaboration and towards possible future increases in collaboration along with their experienced benefits was also an objective of the study. The interviewees were also asked about their organization's vision for the area, whether they thought their collaborators shared this vision as well as what they thought to be the meaning or relevance of a joint vision in residential development. To determine closer what value drivers each actor had and which value factors they recognized in Kruunuvuorenranta, the interviewees were asked to name the most important value factors in Kruunuvuorenranta. As a special point of interest, they were asked about the significance of the Crowne Bridges for Kruunuvuorenranta as an area as well as what they thought was the value creating effect of the bridge project and whether or not the bridge project has influenced the decision making in their organization.

Based on this offset, four goals for the interviews are recognized:

1. To reveal the underlying **relationships** between the network participants within the ecosystem i.e. which actors they are dependent on and which actors are dependent on them;

2. To recognize the **extent of** the conscious **collaboration** between the actors currently, their attitudes towards collaboration as well as their take on whether increased collaboration could be beneficial and if there are any evident hindrances to it;

3. To determine whether the actors in Kruunuvuorenranta had a **shared vision** for the area's development; and

4. To further investigate the **value creating factors** in Kruunuvuorenranta, with a specific focus on the effect of Crowne Bridges project.

These goals were chosen because they were seen to give a good overview of both the possible ecosystem emerging in Kruunuvuorenranta and also the value creating factors of Kruunuvuorenranta that might set it apart from the rest of the city, forming a possible platform around an area (see Pulkka et al. 2016). Thomas and Autio (2014a) recognized the key characteristic for value creation to be the network of participants, so studying that was made a top priority. Furthermore, the definition of an ecosystem includes the inherent requirement of interdependency between the participants, so the interview questions needed to reflect that. The shared vision was considered an important aspect of the shared logic characteristic, and one that was easy to figure out from the interviews, so it was included.

The goal was to recognize the possible ecosystem in Kruunuvuorenranta development project. According to Iansiti and Levien (2004, p. 71), the best way to analyze the ecosystem one is participating in, is to recognize the organizations that have the most significant effect on one's own business operations in the future and identify the dependencies that are most significant to one's business. Following this, the aim of the interviews was to recognize the different roles of the key actors within the development project, as well as their interdependent relationships. Any possible platform owners or keystone actors where tried to be identified.

4.3 Structuring the Interviews

The interview questions were formulated so that the answers would help in answering the research questions. When conducting an interview study, it is critical to separate between research questions and interview questions (Eriksson and Kovalainen 2011, p. 78).

The interview questions were structured in a way, that the interviewees needed not have a deep understanding of the ecosystem concept on a theoretical level, but that analyzing the answers to the interview questions would reveal the answers to the research questions. As was recommended by Eriksson and Kovalainen (2011, p. 84), the interview was structured as multiple simple questions rather than asking fewer questions, but making them more complex. The topics of the interviews are presented in Appendix 1 Interview Framework.

For the purpose of this thesis, all three types of interview techniques discussed in the previous chapter were combined to gain different types of information. Seeing as one of the goals was to shed light on the interdependencies of the different actors within the network, the approach of positivist interview was used to ask the interviewees about actual dependencies within a residential development project and these answers were then cross-referenced.

4.4 Choosing and Contacting the Interviewees

The interviewees were chosen in a way that as wide a range as possible of different roles in the hypothetical ecosystem were included in the study. After key actors in the Kruunuvuorenranta area were recognized, the interviewees were chosen as representatives of these. The City of Helsinki was recognized as a highly important actor with many different roles. Consequently, five of the nine total interviewees represented some division of the City of Helsinki. The interviewees were contacted individually by e-mail, phone or both between April and June 2017. In some cases, the contacted person recommended another person in their organization to be interviewed and some interviewees were also found through recommendations from the earlier interviews or from other contacts of the author.

All of the interviewees are presented in the table below along with their respective organizations.

Table 1 Interviewees for the study

Interviewee	Current Position	Organization	Type of Organization
Ulla Kuitunen	Head of Project	City Planning Department	City of Helsinki
Pirjo Siren	Project Manager	City Executive Office	City of Helsinki
Hille Kaukonen	Planning Development Manager	Skanska Talonrakennus Oy	Construction Company
Kim Jolkkonen	Real Estate Development Director	Kojamo Oyj	Housing Investment Company
Marja-Liisa Heikkilä	Project Planning Architect	Asuntotuotantotoimisto ATT	City of Helsinki
Peter Haaparinne	Head of Bureau	Real Estate Department, Land Division	City of Helsinki

Ville Alajoki	Project Director	Public Works Department, Crowne Bridges project	City of Helsinki
Satu Ryynänen	Project Development Manager	Skanska Talonrakennus Oy	Construction Company
Jussi Murole	CEO, Partner	B&M Architects	Architecture Company

4.5 Conducting the Interviews

The interviews took place in May and June 2017. The interviews were mostly conducted in the offices of those interviewed. The interviewees were presented with the possibility to inspect and reflect upon the questions beforehand if they so requested. In this case, the questions were sent to the interviewees via e-mail around one week prior to the date of the interview. Four out of the nine people interviewed asked to be sent the questions beforehand. Additionally, one interviewee asked for more information regarding the theoretical background and goals of the interview before agreeing to be interviewed. Same background information was also sent to those, who asked for the questions. Also, all interviewees were informed about the interview, the research as a whole and its theoretical background and motivations in as much detail as they wished at the beginning of the interview situation, before starting the actual interview.

The length of the interviews was initially set at 60 minutes, but the realized lengths varied between 23:38 and 85:33 minutes. All but one of the interviews were taped using a digital audio recorder. During that one interview notes on the answers were made by hand, in addition to which, some written notes were made on the most important subjects during all interviews.

4.6 Analyzing the Collected Data

The results of the interview study are presented in the following chapter. The answers received from the interviews were transcribed and common themes and concepts were recognized. Mostly, the given answers to the interview questions are written out in the following chapter. As for the questions concerning the most important value creating factors in Kruunuvuorenranta residential development, a visualization of all the answers can be found alongside the results to help visualize which factors were mentioned most frequently. A simple word cloud visualization was chosen because of its intuitiveness as a visual aid. A word cloud is a visualization where the size of the word represents the frequency by which it can be found in the data it represents (Cidell 2010, p. 516). It should be noted that word clouds are more appropriate for early stages of data analysis (Henderson and Segal 2013, p. 55). At this point, all mentions of the Crowne Bridges were left out, since it was a special point of interest in the study and has been discussed in depth in its own subchapter 5.3.1 Effect of the Crowne Bridges.

Based on the received data, the research questions are attempted to be answered in the chapter 6 Conclusions.

5 Results of the Interviews

5.1 Recognizing Ecosystem Characteristics

The first goal of the interview study was to try and find out if there already were some signs of applying the ecosystem mentality in place within residential development. This was done based on the three-fold characterization presented by Thomas and Autio (2014a). According to the model, a functioning ecosystem has a network of interdependent participants, a governance system for task management and membership control as well as a shared logic, including a common way of working and a shared vision for the end-result. The focus on this study was on the network of participants and the shared logic, specifically a shared vision. Since governance system is more a characteristic of an already organized ecosystem, which seemed to not be the case in Finnish residential development, it was not focused on. Furthermore, residential development and construction in Finland are quite regulated so a shared governance is already in place if not in any other way, but through legislation.

This portion of the interviews also dug deeper into the attitudes towards collaboration and its current relevance in residential development. The interviewees were also asked to assess the case of Kruunuvuorenranta from the point of view of collaboration, and whether or not it is a typical case in the significance of collaboration. Furthermore, possible benefits from added collaboration as well as any hindrances to it were examined.

5.1.1 Network of Participants

Recognizing the interdependencies between different actors was attempted to be achieved by simply asking which actors the interviewees perceived as being their customers or else dependent on their input. Furthermore, the interviewees were asked to recognize actors, whose input are necessary for the success of their own efforts. Every interviewed actor recognized that there are some interdependencies in residential development as all interviewees could name multiple actors that are dependent of their input as well actors whose input is crucial to the process of the interviewee's represented organization. Construction companies and contractors are dependent on the city planning department and the real estate department's land division, however also internal Helsinki city organizations can be heavily dependent of these two actors, depending on their own role.

In their answers, most interviewees emphasized the importance of detailed planning in a residential development project. It was noted that a valid detailed plan dictates the allotted building right as well as many qualitative characteristics of construction in its area. During the planning phase, collaboration between the city planning department and the construction companies or other contractors was found widely beneficial. However, detailed plans are based on the valid master plan, or a valid component master plan, which already dictates quite heavily what the allotted volume of construction is in addition to the intended use of the area. The role of detailed planning in residential development is to more precisely direct the volume and location of construction and more importantly the desired quality and other details of construction.

The decisions made by the city planning department and the real estate department's land division also dictate which actors get to operate in which locations and what is the intended

land use for which area. In the interviews, it became quite clear, that through collaboration the process of city planning along with its execution can be made more efficient. A majority of the interviewees considered collaboration between the city and the construction companies as an essential form of collaboration in residential development, and also as having actual effect on the end-result as well as the effectiveness of the process. What should be noted, is the inclusion of different officials, that set certain stipulations for the detailed plans and for the way of building. The Ministry of the Environment steers construction in Finland (Ministry of the Environment, 11 Jan 2017). In the case of Kruunuvuorenranta, the nature values of the Kruunuvuori open sea area have been limiting for the height of buildings along the coast line in Kruunuvuorenranta. Three of the interviewees mentioned land scape values and protecting the national landscape of the nautical Helsinki as an important factor and a valid reason for limiting construction in Kruunuvuorenranta. At least one interviewee considered the limitations to be overbearing and not efficient considering the volume of the bridge investment.

One interviewee brought up that collaboration and cooperation are always about making compromises. No single actor can hope to purely dictate the end-result, and rightly so. However, through collaboration greater value can still be achieved through cost savings, more efficient time management and through decreased insecurity within the process. Increased training and education were recognized as means of making the process of residential development more efficient by one interviewee. As a further aspect to this suggestion, another interviewee pointed out that in city planning development in the process had been made in the recent years with a specific goal of improving the economy and feasibility of also those detailed plans that are prepared separately of any executive company.

Construction company representatives saw collaboration with the city planning department as beneficial. This seems intuitive, as their own processes and products are so highly dependent on the input of the city planning department. When the needs of the construction companies are considered already in the planning process, they can be sure that the rest of the process will go smoothly for them. Construction companies were also recognized as holding plenty of market information and knowledge over what potential residents want from housing. Using this knowledge together with the city planning department can lead to increased value sustained by the future residents of the area. Also, the land division will reap direct economic benefit, as the experienced value is reflected in land prices settled by the developers.

Increasing collaboration with direct competitors was not seen as valuable for developers. The inputs are highly similar and not a lot of use can be made of the collaboration. This is in tune with the findings in previous studies (see e.g. Thomas and Autio 2014a), where the value creation has been found to be the greatest when the participants in the ecosystem have complementary inputs. Seeing as the inputs of construction companies are more substitutive than complementary, added collaboration is logical to not cause much value. One interviewee pointed out that construction companies' core business is selling apartments and for this reason they might have better market knowledge than the city planning department. This is an example of complementary inputs, where different actors bring different views and information to the table for everyone's benefit. However it should also be noted, as stated at least by one interviewee, that the city planning department cannot function purely based on market demand, as the organization is tied by the city's housing strategy and the goals presented in there.

For developers and construction companies, collaboration with other private actors besides competitors was deemed beneficial by one interviewee. Actors such as service housing operators, apartment hotel operators and the likes was seen as very interesting collaborators, as collaboration with these types of actors may increase the effectiveness of a residential development project. Different types of apartments can be used for different types of target audiences, even within the same development site. This enables all apartment to be used in the best and most efficient way, adding to the value of the entire project.

As one interviewee recognized it, the most important question for residential development in Helsinki, or pretty much anywhere for that matter, is where is it profitable to build. The costs of construction directly affect the value of residential development for the construction company. These costs can be managed as early on as in the detailed planning, or even master planning, if areas that are technically easier to build are preferred over the areas where construction requires more effort and resources. However, land for construction is scarce and not always can these decisions be made based on the technically easiest alternatives. Luckily in the case of Kruunuvuorenranta, the ground conditions are suitable for construction, as most construction will take place on solid rock. Foundation conditions were stated in the interviews to be reasonably good and contaminated soils have been excavated. Ground conditions are one of the most important things to consider when drawing up new detailed plans. On a more detailed level, some details are directed by law or the city guidelines, such as parking space requirements. These all affect the costs of construction, thus affecting the price of the end result (i.e. apartments), but also the experienced value of the residents and other users of the area.

The customers of city planning can be considered to be all the citizens of the city. More directly, land owners and also the future homeowners of the area under development are city planning's customers. From a point of view of the planner, the sustained value for the end-result is more important than that of the land-owner, because city planning is done for the citizens of the city and the goals and motives are based on efforts to achieve high-quality urban surroundings, and not so much to gain economic profits. The customers of city planning also include those divisions within the city's organization that are involved in the development process. In this sense, the technical applicability and unequivocality of the detailed plans are important to make sure the detailed plan is interpreted correctly and will also lead to the good, high-quality and comfortable environment that was intended. The organization and business environment should be kept in mind.

When asked about the typical amount of collaboration in residential development, and whether Kruunuvuorenranta was a representative example of this, it was mostly agreed upon that Kruunuvuorenranta is a typical example of the amount of collaboration between different actors in residential development.

5.1.2 Governance System

The interviewees were not directly asked about the presence of a governance system. This is due to the fact, that as mentioned previously, there is a highly formal governance system in place in the Finnish residential development field. City planning is a monopoly controlled by the municipalities. Therefore, all decisions related to also residential development are dictated by the valid planning situation in any given area. Decision making is a clear factor of a governance system, and city planning dictates not only where to build, what type of

buildings to build and how much allotted building right is granted to an area, but may also regulate more detailed questions, such as the façades of the buildings and the average apartment-sizes.

Even if governance system was not a particularly intended topic of the interviews, it did come up and was discussed to some extent in most interviews. The designing and planning of an area is bound by the regulations of nature conserving and preserving the value of the national landscape of the nautical Helsinki, of which the Kruunuvuori open sea area is a part of as well. These are all circumstances that regulate construction and therefore the development in Kruunuvuorenranta, therefore acting as governance to some extent. Governance system in the way of membership control exists in the way that entry into development is regulated in Kruunuvuorenranta in that most of the land areas were previously owned by the City of Helsinki, where the Real Estate Department's Land Division then decides on the grounds on which land is assigned to developers. However, the most common basis of land assignment is price competitions, which may only poorly be considered an efficient way of controlling membership in an ecosystem.

Furthermore, one interviewee brought up that in situations where a residential block or other area is developed in multi-actor collaboration, namely by a consortium, it is necessary to have one of the involved companies take the position of "project leader" to maintain control and coordinate the efforts of ever actor involved. Also, the project leader in this case would handle most of the communications with the city officials, saving time and resources of the whole consortium. Working as a consortium was also seen as beneficial by the same interviewee as it saves time and money, if only one developer needs to deal with potential problems that arise.

The importance of coordination on a more general level was mentioned by few interviewees. In large projects, it is essential to make sure all the pieces fit together and that the phases are carried out in the right time. Hand in hand with this goes the properly timed allocation of capital and other resources, which was also emphasized by one interviewee. In the case of Kruunuvuorenranta as a whole, the city executive office functions as the coordinator for the entire large-scale project and ensures that all involved actors stay informed on the projects latest developments. The project manager from the Helsinki city executive office was also interviewed for this study.

Coordination can also be seen as part of the compromise making mentioned earlier, as the different phases need to be scheduled in a way that is most efficient and will cause the lease disadvantage for the residents of the area, and therefore some individual actors might experience hindrances in their own projects for the benefit of the larger project.

5.1.3 Shared Logic

Pulkka et al. (2016, p. 140) had stated in their study that an area for construction could be considered a platform, if it had its own values and identity, namely a brand. In residential development, the importance of these factors had been noted and tools and practices had been developed to identify these for any new project areas, according to one interviewee. All interviewees agreed that a clear vision is vital for success, especially for developing completely new areas.

Every interviewee was asked about the vision for Kruunuvuorenranta, in order to see if they were similar. A consensus among the interviewees was that the aim is to create a high-quality residential area. Key factors named included good accessibility through the new tram lines, desirability among home-buyers and tenants, enjoyable living space and an overall nautical atmosphere. The history of the area was also brought up as was the branding of Kruunuvuorenranta as the district of light, with each developer spending one per cent of their investment in the area into light installations. Diversity in housing was also mentioned as a key component of the vision by one interviewee. They recognized the value of living in an urban setting as the freedom to choose from a multitude of possibilities, including the choice between different types of housing solutions. Multiple interviewees mentioned the scenery towards the sea, and that as many apartments as possible should be able to enjoy it. Nature values were also included in the vision by many.

The vision for Kruunuvuorenranta was not only defined from the point of view of the future residents of the area. Recreational use of Kruunuvuorenranta and its shore for Laajasalo on a wider scale as well as for example residents of Kalasatama once the bridges are complete, were also recognized as important aspects. The most large-scale vision was defined from the perspective of the Crowne Bridges project. Crowne Bridges are just one part of a mammoth undertaking to completely renew the transportational map of whole of Helsinki. From this, it can be concluded the project for the bridges doesn't quite share the same vision, but only because its perspective is so much wider. The vision for Kruunuvuorenranta is good public transport and accessibility, which essentially coincides with the other actors' vision. One concrete way of visualizing the different perspectives of the other actors in the network and the Crowne Bridges project is that the other actors are highly dependent on the detailed planning and rely on it to make their plans and estimates, whereas for the Crowne Bridges project the master plan is much more important.

As a further point mentioned by many interviewees was the accessibility of local services in the area, both public and commercial. Kruunuvuorenranta is intended to grow into an urban suburb, where all the daily services are within reach and the day-to-day life could be carried out just by the local service supply. The larger goal is achieving good quality life in a suburb, and even shifting the word connotation of the word suburb into a more positive direction.

A majority of the interviewees considered their organization to have a vision for the whole of Kruunuvuorenranta. This vision was mostly envisioned to be shared with their collaborators, with one interviewee pointing out that minor details could be distinguished to set apart their vision from that of some other actors. A few interviewees considered the efforts of their organization to be more inclined towards the smaller portions of the development area, and did not necessarily have a vision for the whole of Kruunuvuorenranta. When asked how important a vision is for residential development, all interviewees agreed that it was important, but those actors whose organizations had a distinct vision for Kruunuvuorenranta stressed its importance more than those few who did not necessarily consider a vision for the whole of Kruunuvuorenranta to exist in their organization.

From the point of view of a housing investor, the goal is somewhat different than that of a developer. Since the houses are contracted for constant cash flow rather than one time sale, the location is less important. Residents who rent are not as willing to pay for the location as home-buyers are. In other ways, the points of view are similar. The goal is to build good quality housing, with low maintenance and life cycle costs and which are energy efficient and sustainable.

One aspect that needs to be taken into account is the flow of information. According to Pulkka et al. (2016, p. 133), in an ecosystem, exchange of information is one of the most crucial aspects of trust between the ecosystem participants. Trust is highly important for a healthy and well-functioning ecosystem (Thomas and Autio 2014a). From the interviews, it became noticed, that good flow of information can also aid in improving quality of planning and thus bring savings. Land management from a purely legal perspective is something that should be taken into consideration when drafting up detailed plans. This could save time and money as need for expropriation and other cadastral procedures would be kept at a lower level. As a bare minimum, the land ownership should be considered before making detailed plans as some owners are less willing to cooperate with land management officials, leading to prolonged processes. Situations like this could be avoided with increased collaboration between city planning department and city land division. In all collaboration, respecting and including the vision of others was mentioned as a key aspect. Understanding the standpoint of others as well as their individual goals is important in reaching the larger, common goal.

The vision of city planning needs to be carried out onto the next step, admitting building permits by the building supervision authority. In this phase, matters of interpretation may be seen differently than in city planning and ultimately lead to discontinued flow of information when building permits are granted for construction that is not in tune with the original vision of the detailed plan. The goals of the building supervision authority and detailed planning need to be shared, in order to ensure the correct execution of a detailed plan. This is an important tollgate in the process.

Detailed plans are time-specific. They are a product of their own time, and reflect the land political ambitions and city planning trends of the time they were drawn up. Construction should ideally begin as soon as possible after the detailed plan has become effective, to get the best value out of them. This would encourage the most value out of the detailed plans, as less deviation is needed, the detailed plan answers the current demand and the vision of the city planning is carried out as it is still current.

The importance of trust was emphasized by two interviewees. Without trust, the value of collaboration is non-existent. Trust was also mentioned by Thomas and Autio as one of the key aspects in the ecosystem (2014a).

5.2 Value Creation in the Ecosystem

Based on the interviews, value is created through collaboration mostly through savings in time and resource inputs as well as through better quality in the product and end-result. Through collaboration an efficient and desirable residential area is formed, where not only people want to live, but also spend their free-time, in turn attracting different types of service providers into the area, who then lease the retail premises, creating value for either Helsinki City Premises Centre or the private housing companies, who let their premises. Furthermore, the residents of the area benefit by using the services and so a positive cycle is formed.

Both the representatives of construction companies as well as the city planning department concurred that detailed plans that are drafted in collaboration (Fin. “kumppanuuskaavoitus”), are more likely to lead to the desired outcome and at a lower level of costs. This is one concrete phase of the process where value can be created in both saving expenses when a common vision is defined early on and then both parties work in collaboration to reach that

vision. This also brings security to both parties, because the city planner knows that the detailed plan will be carried out without delay when it becomes effective. On the other hand, the construction company has security, because the detailed plan is now drafted so that they don't need to apply for deviation decisions before they can get a building permit.

Additionally, some actors are highly dependent on the other actors in the ecosystem. In these cases, value creation is not possible to begin with without the inputs of other in the network. Furthermore, collaboration helps keep everyone's focus on the shared end goal, making value creation easier for everyone.

The types of values recognized in the interviews fall mostly into economic and qualitative categories. Most interviewees recognized the quality of construction and the resulting buildings as important value drivers for their organization. Good-quality technical solutions and energy efficiency lead to lower maintenance and lifecycle costs, which in turn create value for residential developers, residential investment companies as well as future residents, both renters and home-owners.

For residential investment companies, collaboration is beneficial, but in larger partner planning projects, they are more interested in being a part of a consortium with construction companies, other contractors or developers, as they rarely develop a very large area on their own and are more inclined towards having smaller units and single houses within a development area.

One interviewee had a more skeptical outlook to how well the ecosystem concept could be integrated and applied in residential development. In any case, collaboration should be saved for situations where it is truly useful and necessary. Collaboration should not be held as an absolute value on its own. However, the interviewee in question also recognized the value of collaboration in certain situations, if for example the construction conditions on a certain plot clearly call for collaboration among different actors. Working as a consortium received an accepting assessment as well.

Most interviewees agreed that collaboration and cooperation as such are favorable. However, collaboration purely for the sake of collaboration was not promoted. Collaboration should always have specific goal, notable benefits and clear boundaries. In some cases, conditions really dictate how for example a certain plot can be built and in those cases collaboration between even rivals can provide the only sensible solution. Possible problems in production need to be solved only once, making the whole project run more smoothly and bringing benefits to all participants. In this type of cases collaboration was seen as profitable. One point that an interviewee brought up was that added collaboration should not lead to added micromanagement, bureaucracy or indecision. The big picture should always be kept in mind along with the total benefit to the entire network.

A few interviewees noted the importance of quality of construction so that life cycle expenses can be minimized. This is quality for the residents, both home-owners and tenants, as well as residential investment companies, who own their buildings and for all the residents of the area as construction quality affects the reputation of the area thus affecting the value of the apartments. For home-owners the value in construction quality comes also from the quality of living, not just through the resell value of their home.

Value in an ecosystem is created similarly to other organizational models. The defining, separating characteristic is the explicit focus on collective value creation. In an ecosystem, the value created should be more than the sum of the products of its individual participants. The most notable mechanism for this increase in value creation comes from decreased costs of, in the lack of a better word, production. In the interviews, one important aspect into possible cost cutbacks was increased collaboration between the city planning department and the executive actors of construction i.e. construction companies, developers and contractors. When the detailed plans are designed in collaboration, there is less need for deviation decisions later on in the process, obtaining building permits is more straight-forward and the city planning department uses their inputs efficiently, as the detailed plan is sure to go into execution without delay.

When asked about the possible benefits of the ecosystem approach, benefits in maintaining tighter schedules was mentioned in addition to innovations in services and quality factors as collaboration and communication increase. A majority of the interviewees also recognized the quality of the end result as a factor of value. Collaboration in detailed planning also ensures that the quality of construction is as the city planning department has meant for it to be. In other words, their vision for the value in the end product is carried out.

One form of collaboration that also came up in the interviews was using consortiums for developing residential blocks. Using consortiums guarantees that the block will be built in a timely manner and that there is diversion in possession of the apartments and possible services within the blocks. Value for the residents is in some ways the end result. Not all of the value necessarily reflects upon the transaction prices, but it is still value nevertheless. For example, in Kruunuvuorenranta, living as a service is carried out by the two service companies that are responsible for the garbage disposal through the tubes in the ground as well as the parking facilities and common premises that may be used by the residents. These are factors that don't necessarily reflect on the transaction prices, at least in the short run, but affect the quality of living of the residents affecting also the degree of affection and commitment to the area and ultimately leading to more engaged residents and a communal area. As was mentioned in the interviews multiple times, the value created by the developers is mostly done by the time the residents move in, after that is in the hands of the residents to affect how the valuation of the area develops.

Defining what value is for all the ecosystem participants was an important goal for the interviews. Studying how value is created and how the value creation is affected by applying the ecosystem concept into use would be difficult without first defining what is meant by value. From a city planning point of view, the value is mostly seen as in the high-quality living environment that is created as the end result of residential development. Economic drivers were not seen as suitable for city planning. In detailed planning, money cannot be a defining precondition. Good urban design will not be achieved if costs and economic factors are used as main guidelines.

One defining principle in detailed planning is also the demand for equal treatment of all: neighbors should have equal rights and demands. There should be common rules for everyone within the one area. All landowners should be equal in the eyes of detailed planning. Also, as all the citizens of Helsinki are considered customers of city planning, there is value in creating high-quality, attractive and functional environment. Mitigating segregation is a key goal of the city, and thus also for city planning. All of the built buildings should be of equal quality levels and it shouldn't be recognizable from the outside which

houses are privately owned and which are rental apartments. This is also a quality factor for the whole area, as it eliminates the emerging of "lower-quality" areas and houses. As all houses are similar on the outside, classifying residents based on their home building is not possible and all residents are equal in the area. This can help improve quality of living and also help to commit and engage all of the residents in the area for improving their living spaces.

Because one mechanism for creating benefits in an ecosystem is the decreases in costs, the sources of costs is also of interest to the goal of this thesis. Recognizing different cost factors can help to scale them down and eliminate them through cooperation. A significant cause for expenses in residential development is contamination in the soil. The needed excavations take up time and money. Another major expense is challenging foundation conditions. Pile driving is expensive and time-consuming. This kind of conditions can to some extent be avoided through decisions made by the city planning department and the developers themselves, but in Helsinki for example, land for building is scarce and there is little possibility for being too precise in choosing where to build.

The interviewees were also asked whether increasing collaboration in residential development could help make the processes more efficient, swift and smooth. The insights on this matter were quite divided, with some interviewees agreeing completely and others seeing that just increasing collaboration is not sufficient, but that the quality of the collaboration should also be kept in mind and improved upon and that collaboration should only be utilized when there is clear evidence of its benefits. One interviewee brought up that all the actors should really understand the process. Even within the interviewees in different roles in the city offices, some differences in the visions was noticed and the interviewees themselves recognized that different offices within the city organization might have different goals, as well as different indicators for success and productivity. The big picture was seen as shared, but details and perspectives are different based on the role of the different organizations. The organizational change that was carried out in the organization of the City of Helsinki during the interview study of this thesis was seen by few interviewees as a possibility to clarify the goals of the city and to further enhance their operations as a united front. In that case, the effect would also be seen in residential development projects.

Collaboration within the process can also help to steer clear of bottlenecks in the development. Bottlenecks cause delays in the process, meaning added costs and also cause mora expenses just by tackling with them. Dealing with private landowners, excavating contaminated soils and delays in the building of the necessary infrastructure were recognized as possible problem phases in the development process. All of the potential problems faced in these phases cause even more expenses and delays than just the problem itself due to multiplier effect. All of these could be made more efficient and problems avoided with increased collaboration and flow of information. The building of infrastructure especially was mentioned by a majority of the interviewees. Since without the necessary infrastructure the area cannot be lived in, and furthermore, even starting construction might have to be postponed.

Most interviewees expressed the wish for the Crowne Bridges to be ready as soon as possible. In the case of Kruunuvuorenranta it can be seen as reality, that constructing the infrastructure does form a bottle neck in the development. As for the Crowne Bridge project itself, the scale of the undertaking is so huge, that collaboration with a multitude of different organizations is an absolute must, not just a way of adding value. Increasing collaboration

was thus seen as quite impossible, as the amount is already so significant as are the number of stakeholders and cooperators in the project.

5.3 Elements of Value in Kruunuvuorenranta

The quality of the valid detailed plan heavily affects the value and desirability of the project area. Good-quality plans with high building efficiency ratio and building types that follow the current trends are desirable for the construction companies and also generate sufficient cash flow for the city land division. As a key element of value from the construction costs' point of view, the allowed height of a residential building was mentioned, for example building an elevator into a 3-storey building is less efficient than building one into a noticeably higher building, when allocating the costs to the apartment units. Even apparently small details like this can have a significant effect on the efficiency of the development project and the profitability of construction and thus indirectly land prices as well as housing prices. From the planning department's perspective, however, not everything can be assessed from a financial view point, but qualitative factors need to be accounted for as well. On a further note, the planning department also has regulations to follow and are not entirely free to draw detailed plans as they please.

As can be seen from figure 4, where the most commonly recognized elements of value that came up in the interviews are presented, the nautical atmosphere and proximity to the sea are valued quite highly among the interviewees. At this time, all mentions of Crowne Bridges were left out, because they were considered separately. Another important element of value was considered the abundance of nature in the area, which is planned to play an important part in the whole feel of the area. Little bits of the existing forest as well as new plantings surround the buildings and form fingers, penetrating into the built environment.

Figure 4 Word cloud of the most notable elements of value mentioned in the interviews

The quality of the construction in the area was also recognized as an important element of value. This was recognized as being due to both the planning regulations and the goals of the developers in the area. High-quality construction makes for a high-quality area, which in

turn attracts residents and creates demand for housing in the area. Energy efficiency and moderate life cycle expenses are beneficial for the future residents, private home-owners, investment companies who own entire apartment buildings in the area as well as construction companies. Quality of construction adds to the reputation of the area, which leads to added demand for housing in the area, which benefits the construction companies and housing investors. Furthermore, residents may be seen as benefiting not only from value increases of their homes but also from living in a renowned area. Construction aims to provide safe and efficient housing throughout the life cycle of the buildings.

One interviewee noted, that the focus in the branding for the area has been different. As opposed to other former harbor areas such as Arabianranta and Jätkäsaari, the ground conditions in Kruunuvuorenranta allow for saving some of the old oil harbor structures, such as the Öljysäiliö 468. Additionally, some piers and oil tanks are preserved to give the area its own feel and a sense of history. Even though the area is brand new for residential use, it still has its own history. Stansvik mansion and old villas also add their own layer of history. The light art installations label the area. It brings its own layer and adds to the identity of the area. It also can be seen from the city center across the Hevossalmensalmi.

Landscaping was also mentioned as a value creating factor in Kruunuvuorenranta. The area will remain a construction site for many years to come and every factor that adds to the attractiveness of the living space can help dispel the disadvantages caused by that. A closely related element are the spectacular natural sceneries provided in Kruunuvuorenranta. In addition to the nature, the area has to offer a never-before experienced, unique perspective of the city center.

New types of services, such as car sharing were mentioned as a possible value factor for both the residents as well as the developers. The residents have the possibility of taking up a car for more occasional use even if they don't own one. On the other hand, the developer can manage building fewer parking spaces than what is allocated in the detailed plan, thus saving on construction costs. As a whole, the community benefits, as less land is needed for car parks. The proximity to the sea as well as the area's history were mentioned by most interviewees as important value creating factors.

The quality criteria of a detailed plan have a significant effect on the experienced value of the potential residents, both home owners and renters. This has a direct effect on the desirability of the area, thus affecting the demand for housing in the area and further affecting the prices in the area. Demanding higher quality of construction, for example certain types of façade materials, are naturally linked to higher costs of construction as well. This is all a part of the vision of the detailed planning in Kruunuvuorenranta, which is creating enjoyable and comfortable urban area. Esthetically pleasing urban structures are preferable, making the area desirable for residents.

One more detail affecting how pleasant and functional the area is experience, are the street spaces. In Kruunuvuorenranta, these were considered by multiple interviewees as functional and as highly central in the planning of the area. Functionality and safety of the street spaces are important factors in how the area is perceived and how effortless navigating around the area seems to be. Details like this can have significant effect on experienced value, at least from a utility point of view. Street spaces also directly affect how attractive the outside spaces of the area are and how much time people will want to spend there. This also affects the productivity of street-level businesses in the area.

5.3.1 Effect of the Crowne Bridges

The initial hypothesis of the value creating effect of the Crowne Bridges and the related tram operations was confirmed. Every interviewee agreed that the effect and importance of Crowne Bridges is very high for Kruunuvuorenranta. The bridge project enables fast and easy accessibility to Kruunuvuorenranta from the city center and eastern downtown area. As a side effect of people using the tramlines to move between Kruunuvuorenranta and the city center, the roads leading from Kruunuvuorenranta and rest of Laajasalo will have less traffic and more space for those choosing to use their own cars.

The Crowne Bridges seems to be the one most important elements of value in Kruunuvuorenranta. All interviewees agreed, that the impact of the Crowne Bridges project and the associated tram lines will significantly improve the accessibility of the area and also that the improved accessibility will highly affect the appeal of the area for potential residents. Increased appeal leads to increased demand ultimately leading to increased housing prices and rents. On the other hand, it should be noted that few interviewees mentioned the possible negative effect of the bridges onto the national landscape Kruunuvuorenranta is a part of. However, it was undisputed that the bridges help connect the area to the services of the city center. All interviewees agreed that without the bridges, Kruunuvuorenranta is a blind alley where a private car is practically a necessity for getting around.

What also came up in the interviews was that previously designing transportation in a city has mostly been based on the needs of commuting, traveling to and from workplaces. This has been generally considered as the most important use for transportation in a city. The focus has only recently shifted, as people tend to travel within a city for recreational and pastime uses as well. Crowne Bridges is a good example of how infrastructure for transportation can also be considered from a free-time perspective: Kruunuvuorenranta is an opportune location for recreational use by residents of eastern downtown, where the bridges connect to the mainland. Crowne Bridges together with the whole extension of the trail express route will benefit all of the downtown Helsinki, according to one interviewee. They will also help make Korkeasaari much more accessible for tourists and other traffic from the city center. This is a point of view that has not much been discussed in the public.

As one interviewee put it, building the Crowne Bridges is not only a solution for the currently growing need for transport in Kruunuvuori, but also a solution for the future. Transportation infrastructure has to be scaled for the future population, or otherwise they will already be obsolete once the construction is finished. If Helsinki wishes to keep on growing, it needs to commit to making growth possible and making the city livable and thriving for its population. Crowne Bridges is only a small part of large development impacting the whole transportational road map of the southern parts of Helsinki.

The positive effect of the Crowne Bridges was stated in the interviews to affect both apartment prices and rents in rental apartments. However, effect on rents was considered lesser and also the effect of the bridges was considered to show only after they have been finished and tram connection starts operations. The anticipated value appreciation caused by the bridges was not seen as affecting renters, but its effect on decisions to buy was considered possible.

Crowne Bridges were mentioned by one interviewee to be an important marketing factor of the area and used by most property realtors and construction companies in their advertising for the area. This also speaks for the significance of the bridge connection.

It was also seen as significant that the chosen method of transport for the bridge is an express tram instead of bus lines. Transport methods on tracks are generally considered more reliable, easier to use and thus more desirable. Choosing the appropriate mode of transport has a direct effect on the value creation in the area, as it not only affects people's perceptions of the area, but also the functionality and utility they experience.

In one interview, the criticism towards not allowing cars on the future bridges was brought up. Criticism in the public has been based on notions that no one takes public transportation to Kruunuvuorenranta and that the residents rely on their own cars. However, as was stated in the interview, that public transportation at the moment is nonexistent in Kruunuvuorenranta. Private motor traffic is the leading mode of transportation, because no alternatives exist for it yet. In the interview, it was also mentioned, that the area might even attract people who don't own cars or have a desire to use one in their daily life, because the subject of the car-free connection to the city center has been made such a big deal in the public discussion. What should also be noted, is that not everyone travels to the city center from Kruunuvuorenranta, but many will also need connections to and from Eastern and Northern Helsinki, and that connections to these directions will improve if there are fewer cars on the roads leading off the Laajasalo island.

The Crowne Bridges project is crucial for the development of Kruunuvuorenranta as the kind of suburban residential area it is designed and planned to be. Without the bridges, the public transport is not a viable option and the area will not be an urban part of Helsinki. The bridge was seen as already being "late". The construction should have started already. Delays in the construction of the bridge were seen to have contributed to delays in the development of the area overall.

6 Conclusions

This chapter will summarize the findings of the research. In addition, the quality and reliability of the study are evaluated shortly and topics for further research are proposed. This chapter is structured so that each of the research questions are addressed and answered.

6.1 Key Findings of the Research

The purpose of the thesis is to increase knowledge on value creation in residential development, and to further study the applicability of the ecosystem concept, as well as recognize main elements of value in residential development. This is done by first utilizing a literature review and later conducting an empirical research with a semi-structured interview study as the research method. The study was started off with three research questions and their respective sub-questions. The research questions were as follows:

1) What is the ecosystem concept?
    a. How is value created in an ecosystem?
    b. Can it be applied to residential development?
2) What are the specific value creating factors in Kruunuvuorenranta residential development project and Kruunuvuorenranta as a residential area?
    a. What is the role of Crowne Bridges in the value creation?
3) Can Kruunuvuorenranta residential development be seen as an ecosystem platform?
    a. What is the value Kruunuvuorenranta provides to the participants of the ecosystem?

To finally answer these questions, they are each addressed individually in this subchapter, starting with the first research question:

1) What is the ecosystem concept?
    a. How is value created in an ecosystem?
    b. Can it be applied to residential development?

Based on the literature review, an ecosystem was defined as being a network of highly interdependent actors working consciously towards a shared goal and creating shared value. A basic model of a functioning ecosystem was recognized. This was recognized as composed of three main characteristics with their respective subcategories. These are 1. network of participants, 2. governance system, and 3. shared logic.

The first characteristic, network of participants, is identified as consisting of highly interdependent participants, whose inputs are complementary and who co-evolve within the ecosystem. From studying the network of participants in the Kruunuvuorenranta residential development project, it could be said that the participants indeed have high levels of dependency for each other. The one participant, who the others seemed to be highly dependent of, was the City Planning Department. City Planning Department plans and draws up the detailed plans, which dictate quite heavily on the exact location, volume and quality of construction. Additionally, the City Planning Department has a monopoly position in detailed planning, so collaborating with them was seen as a good way of having an impact on the detailed plans and thus effect on what is built, how is it built and where. All these

things effect not only value creation, but also cost formation. The City Planning Department has its own visions to follow, as do developers, and the goal of collaborations was widely seen as reaching some kind of compromise, where the value for both are maximized and especially the value for the future residents is as high as possible. The importance of city planning for residential development was in accordance with earlier findings on the topic as well (see Ratcliffe at al. 2009). Another key actor seemed to be the Land Division, of which other participants are also dependent on.

Most interviewees agreed, that in order to ensure the vision of the city planning department and to reach the best quality end product in this sense, that collaboration between the city planning agency and the construction companies, or a construction contractor, is vital. As far as the value of the end result is concerned, the best value is reached when the vision of all participants is shared and carried out as quickly as possible. In cases where the city planning department is working independently of any operating party, the original vision of the plan is often not reached. The plan either becomes dated before it is carried out or the interests of any actual construction company are not included in the plan, so that a deviation decision is needed before any construction on site can begin. From this, it could be concluded, that the City Planning Department and the developers have an interdependent relationship.

As for the complementariness, the inputs of different actors in residential development are highly complementary, apart from that of direct competitors. In the case of collaboration between competitors, it was not seen as equally beneficial as collaboration with complementary actors. This seems intuitive and in line with the theory. Co-evolution happens through shifts in cooperative and competitive strategies, and was noticed as fairly difficult to measure or study.

The second characteristic, the governance system, was not asked about directly, but nonetheless some insight was gained on it. Governance system is made up of authority structure, membership control and task coordination. In Kruunuvuorenranta, task coordination for one seemed to be in the hands of the project coordination in Helsinki City Executive Office. On a smaller scale, each developer manages their own internal tasks. In the case of forming a consortium, the meaning of a governance system was underlined, as collaborating among a group of equals can be difficult, if no one holds the reigns and coordinates the bigger picture. As for the whole residential development industry, the detailed planning again controls the details of the residential development, and to some extent is a part of the authority structure within the ecosystem. Seeing as residential development is dependent on the decisions made by the City of Helsinki's Real Estate Department's Land Division, these may be seen as part of the shared governance system within the ecosystem; their decisions directly affect which actors are included in the process and to which extent. From this, it can be concluded their decisions to affect the network of participants, which is the one factor in the ecosystem that has direct effect on the value creation.

As the final characteristic, the shared logic, it consists of trust, mutual awareness and legitimacy. The participants within the network in Kruunuvuorenranta can be said to have mutual awareness, seeing as most interviewees considered them to be a part in developing the whole of Kruunuvuorenranta, and not just the small part of that is their responsible. Furthermore, the interviewees were asked about their organization's vision for Kruunuvuorenranta and whether they thought the other actors in the development shared the

vision. Seven interviewees out of nine definitely considered their organization in having a vision for the whole of Kruunuvuorenranta and also considered this vision to be shared by the other actors in the development. This speaks for mutual awareness in a shared enterprise. Already Moore noted that companies must align their visions in order to co-evolve in an ecosystem. This helps create mutually supportive development investments and synergy in operations. (Moore 2006, p. 34.)

When functioning properly, the ecosystem can create more value than the individual participants could create on their own. This is why operating in an ecosystem environment may be a lucrative option for a company and that is the end goal of an ecosystem. It could be described as a positive sum game of one plus one equals more than two. On the other hand, an unhealthy ecosystem can cause companies and businesses to collapse. Furthermore, an ecosystem can shift focus and thrive continuously, even if individual participant companies face defeat. One perspective of an ecosystem is the dependency of the success of any individual ecosystem participant on the success of the whole ecosystem. From the interviews, any conclusion to this could not be drawn.

Based on this, it could be concluded that ecosystem is a network of highly interdependent participants, working in collaboration towards a shared goal. Based on the conducted study, it is difficult to give a definitive answer as to whether the ecosystem concept is suitable for residential development, but no apparent reasons were found why the concept would be completely incompatible.

The first sub-question handles the value creation in an ecosystem. According to the literature review, the most important methods of value creation in an ecosystem are caused by synergy, cost efficiency and innovations. This was also backed up by the interviews, as cost efficiency was noted as the most important reason for added value caused by collaboration. Thanks to synergy, some qualitative and energy efficiency solutions were considered to be possible to reach, that wouldn't have been discovered without collaboration. No examples of exact innovations were discovered during the study, but this does not mean, that innovations couldn't be a source for value creation also in residential development networks.

The second sub-question is whether the ecosystem concept is applicable in residential development. Based on the literature review and the interview study, it could be concluded that no reason was found for the ecosystem concept not be applicable in residential development. In the literature, it had been previously stated that a platform ecosystem could be created in a specific development area (see Pulkka et al. 2016). The interviewees all had a positive outlook on increased collaboration in residential development and the benefits of the ecosystem, such as cost savings, synergy, better quality of residential environment and increased sharing of information, were widely recognized in the study. This would suggest, that applying the ecosystem concept in residential development may be possible. However, the study is considered too limited to draw any actual conclusions on this.

Moving on to the second research question, which was is as follows:

2) What are the specific value creating factors in Kruunuvuorenranta residential development project and Kruunuvuorenranta as a residential area?
    a. What is the role of Crowne Bridges in the value creation?

The most important elements of value can be recognized as being the proximity to the sea, the views it offers and the nature that surrounds the residential area in all directions. The quality of construction was recognized as a key component, from multiple aspects. On the other hand, good-quality buildings are pleasant and functional to live in and be surrounded by. Construction quality also directly affects life cycle costs, which is of interest especially to residential investors. Additionally, life cycle costs affect the value experienced by private home owners, even if they maybe don't consider this when buying a home. On the other hand, construction quality can remarkably affect sustainability and energy efficiency, which further affect maintenance costs. Again, this is something that a professional actor can better consider but which also affects the value experienced by a private home-owner. Furthermore, energy efficiency and sustainability, along with other green values, can also become an image factor in the current world situation. People are interested in living in an environmentally friendly way, and this goes for the choosing of a dwelling as well. As a related note, the improved public transportations to and from the site will most definitely enforce the area's image as a sustainable and green residential area. The fact that private cars are not allowed on the Crowne Bridges may lead to people, who value such environment choices to move to the area in substantial amounts. All this will ultimately affect the image of the area, leading to different valuation.

The different elements of value that came up in the interview study could be categorized as shown in figure 5. From this, it can be concluded that the most important types of elements of value in Kruunuvuorenranta are ones related to the location and the quality of construction.

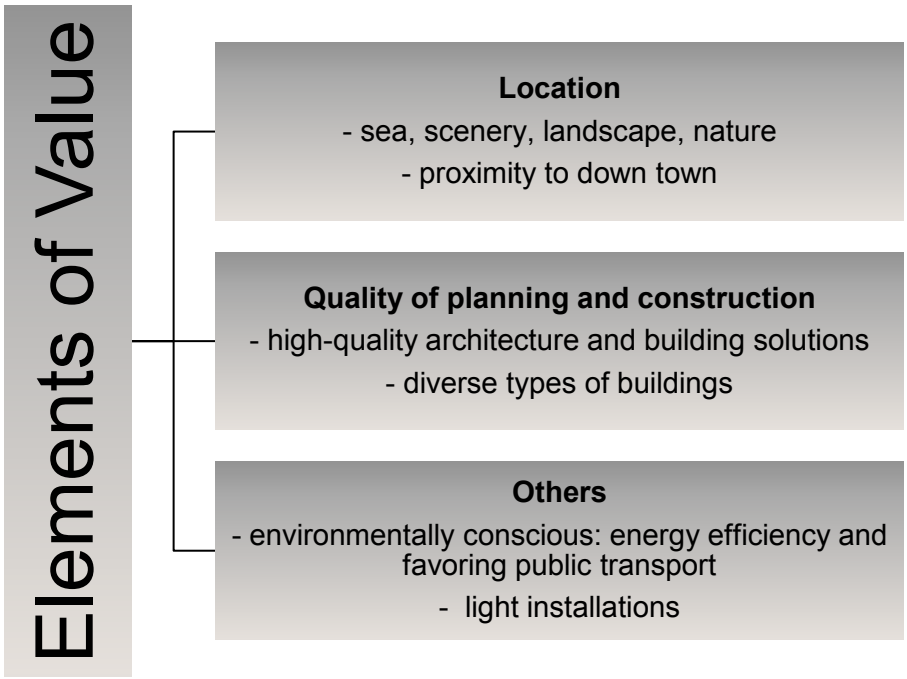

Figure 5 Grouping the elements of value in Kruunuvuorenranta residential development

The interview study confirmed the initial hypothesis of the significance of the Crowne Bridges for both the residential development project as for the whole area and its value creation. Without the bridges, Kruunuvuorenranta was characterized as a blind alley, and not

really a part of the urban area of Helsinki, but just another suburb. In this sense, the bridges are necessary for the realization of the shared vision for the area.

The better accessibility of Kruunuvuorenranta also creates measurable value. This can be seen as happening through two mechanisms: first, it adds to the value of the residential projects in the area making potential customers willing to pay more for the product, since they will also get more value from it. The future residents will gain utility and esteem value in this case, which also reflects on the price value of the product (i.e. housing units). Secondly, once the area is complete and if there are more people willing to move to the area then there are people willing to move out of it, the limited supply of apartments will cause pressure for apartment prices to rise. In this case, it could be said that the exchange value of the housing units increases.

However, some interviewees noted that the principle decision to construct the bridges would not yet be visible from the customer point of view. Future-residents of the area were not considered willing to pay extra for the bridges quite yet. Seeing as the construction of the bridges is slow and will only start in 2018 with a scheduled take-up date in 2026, potential residents cannot be expected to be willing to pay for the future value of the area already today. This was seen to be highlighted in the rental market, where the potential value increase in the apartment will not benefit the residents directly. Improved accessibility once the bridges are done, was however considered to show up in the rental market as increases in rents as well. Of course, this is all still speculation until the bridges actually are done.

The third research question is:

3) Can Kruunuvuorenranta residential development be seen as an ecosystem platform?
    a. What is the value Kruunuvuorenranta provides to the participants of the ecosystem?

When considering all the data gathered, it can be concluded that residential development does include a tightly-knit, interdependent network of participants. However, whether or not Kruunuvuorenranta would be a platform is a more difficult question to answer and would require more research into it. Pulkka et al. (2016) noticed that an area can function as a platform, when it has a clear identity, brand and values. These were all found in Kruunuvuorenranta. However, a platform should also have little value on its own. How to separate between the potential value and real value of land, when trading of land is almost without exception always based on its potential value? Owning land for the purpose of owning land is not very useful, and it requires efforts of multiple actors to gain the maximum value out of any land. So in that sense, it could be said that considering Kruunuvuorenranta as a platform is not completely impossible. It does have a clear identity and own values, that set it apart from other residential developments. For example, the closely related projects of Jätkäsaari and Kalasatama are both more efficiently built and have an overall more urban feel, where in Kruunuvuorenranta the proximity and penetration of nature all around sets it clearly apart from these two.

The importance of energy efficiency and sustainability was mentioned both in the literature (Andelin et. al 2016) and the interviews. Due to the changing world and attitudes, the importance can only be expected to grow. Ecosystem mentality with its possibilities to save resources and time, fits right into this.

As for the value that Kruunuvuorenranta provides to the participants of the ecosystem, the desirability and value of being a part of the residential development project in Kruunuvuorenranta was brought up in the interviews. However, so was also the fact that all possible residential development areas in Helsinki are desirable for the actors, as there is never too much of land available in Helsinki. The value of operating specifically in Kruunuvuorenranta as opposed to other areas are closely related to the value creating factors that were already discussed previously in this chapter. Furthermore, the coordination provided by the City executive office of Helsinki was seen as a definite advantage and was seen as adding to the value of taking part in the development project. However, the same coordination system is in place in all of the larger development projects in Helsinki, so this is really more of a regional benefit then specifically only related to Kruunuvuorenranta. The answer to the research question on the value of Kruunuvuorenranta to the ecosystem participants cannot be definitely answered based on this study.

6.2 Research Quality and Reliability

The aim of this thesis was to provide answers to the determined research questions by using a semi-structured interview study as the research method. Before conducting the interview study, a literature review was carried out to recognize and group the most important aspects of the ecosystem concept. Similarly, some key aspects of the residential development of Kruunuvuorenranta were researched in order to conduct the interview study efficiently. The group of interviewees was formed based on the recognized key actors in the area. In the interview study their insights on the possible benefits of the ecosystem concept were surveyed, and the research questions were answered based on the analysis concluded from the interview data.

The interview study is estimated to have succeeded in its mission to collect and group most important value creating factors in the Kruunuvuorenranta development. The main focus of the thesis was in recognizing the potential of applying the ecosystem concept in residential development. For a conclusive answer, the study is assessed to be too restricted, but the results are encouraging and most interviewees regarded increasing collaboration as a positive development.

During the interviews, it became obvious, that some interview questions were, contrary to specific efforts otherwise, considered too complex or having ambiguous terminology. The concept of value was considered by most to need more clarification. As the study was carried out as a face-to-face interview, any unclear terms could be clarified and elaborated on during the interview situation. However, were this a less interactive survey, it should definitely be considered as a point of critique for the reliability of the research, as interviewees could have understood the meaning of certain questions differently. In the case of this thesis the risk is also possible, because not all interviewees asked for clarification.

As for the validity, the interview study would have benefitted from a larger number of interviewees, representing a larger array of different actors. This way a more conclusive sample would have been obtained, and more diverse perspectives would be present in the study. Especially the study is impaired by the lack of other further developer participants.

One challenge in conducting the research was the ongoing organizational changes within the City of Helsinki at the time of the research. When trying to visualize and bring to light the

different roles of the included actors and their mutual interdependencies, any currently happening changes in the roles and tasks of the actors is bound to complicate things. Seeing as the organization has changed after conducting this research, any references to the City of Helsinki Organization can be considered outdated.

6.3 Further Research

An interesting point of view to the value creation in residential development is the continuation of the development of the area once construction is finished, residents have moved in and the area is "finished". The residents then take the area as their own and start developing their own events, services and such to continue adding to the value in the area. Just as in a construction project, the possibility to affect the employment of capital is during planning and design process, after construction starts the decisions become finalized and are executed but the most resources are actually employed during the take up and usable life span of the building. However, the decisions made during design affect this directly. A residential development project can be seen in a similar way, where the planning and constructing directly affect how people will respond to the area and what the actual experienced value from the area will be. Or if the area will now find its target audience and some of the resources used will go to waste since the potential of the area is not fully utilized.

From the interviews a notion came up that the Crowne Bridges also have value creating effects on a larger scale than just in Kruunuvuorenranta. Residents from for example Kalasatama can use Kruunuvuorenranta as recreational area adding to the value of Kalasatama as well. One aspect of further research could be studying the effects of Crowne Bridges on other areas besides Kruunuvuorenranta. This has not been previously done, and to an exhaustive level, it is probably not even possible. However, further research into the topic could be both interesting and beneficial, since the bridges will be built. However, the time span should be considered, since any quantitative research into the topic would still be highly speculative.

As is the case with most ecosystem literature, the focus of this study was in value creation. Value appropriation could be just as interesting and beneficial to study, so that is a potential topic of further research. All in all, it could be suggested, that further study into the topic with a more substantial and varied participant sample in the empirical part could be beneficial.

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List of Appendices

Appendix 1. Interview framework.

Role of the interviewee in their organization and in the Kruunuvuorenranta project

- Position in the residential development ecosystem
- Recognizing direct interdependencies
- Assessing the importance of collaboration currently
- Recognizing possible benefits from added collaboration and hindrances to it
- Recognizing the organization's vision for Kruunuvuorenranta
- Assessing whether all actors share the vision

Value creation

- Defining value drivers for each actor
- Determining the possible effects of the ecosystem concept for value creation

Kruunuvuorenranta residential development

- Recognizing the key elements of value in Kruunuvuorenranta
- Determining the meaning of the Crowne Bridges project for the Kruunuvuorenranta residential development
- Assessing the value effect of Crowne Bridges on Kruunuvuorenranta area
- Recognizing the effect of Crowne Bridges principle decision on the organization's decision making